BOARD MEETING AGENDA
REGULAR MEETING OF THE BOARD OF DIRECTORS OF
CITRUS HEIGHTS WATER DISTRICT (CHWD)
OCTOBER 18, 2017 beginning at 6:30 PM

DISTRICT ADMINISTRATIVE OFFICE
6230 SYLVAN ROAD, CITRUS HEIGHTS, CA

In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the General Manager at (916) 725-6873. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

CALL TO ORDER:

Upon request, agenda items may be moved to accommodate those in attendance wishing to address that item. Please inform the General Manager.

ROLL CALL OF DIRECTORS:

PLEDGE OF ALLEGIENCE:

VISITORS:

PUBLIC COMMENT:

The Public shall have the opportunity to directly address the Board on any item of interest to the public before or during the Board's consideration of that item pursuant to Government Code Section 54954.3. Public comment on items of interest within the jurisdiction of the Board is welcome. The Presiding Officer will limit comments to three (3) minutes per speaker.

(A) Action Item (D) Discussion Item (I) Information Item

CONSENT CALENDAR: (A/I)

All items under the Consent Calendar are considered to be routine and will be approved by one motion. There will be no separate discussion of these items unless a member of the Board, Audience, or Staff request a specific item be removed for separate discussion/action before the motion to approve the Consent Calendar.

CC-1. Minutes of the Regular Meeting – September 13, 2017
CC-2. Revenue Analysis Report for September 2017
CC-3. Assessor/Collector's Roll Adjustment for September 2017
CC-4. Treasurer's Report for September 2017
CC-5. Treasurer's Report of Fund Balances for September 2017
CC-6. Operations Budget Analysis for September 2017
CC-7. Capital Projects Summary September 2017
CC-8. Warrants for September 2017
CC-9. CAL–Card Distributions for September 2017
CC-10. Summary of 2017 Employees and Directors Training Courses, Seminars and Conference
CC-11. Employee Recognitions

CC-12. Long Range Board Agenda (I)
Board Agenda Items Planned for Upcoming Meetings.

CC-13. Engineering and Capital Projects Departmental Report (I)
Significant assignments and activities for the Engineering and Capital Projects Department are summarized.

CC-14. Operations Departmental Report (I)
Monthly report on construction and maintenance activities.

CC-15. 2017 Water Supply – Purchased and Produced (I)
Report on annual water supply including comparison with prior years.

CC-16. Water Supply Reliability (I)
Receive status report on surface water supplies available to the Citrus Heights Water District.

CC-17. Water Efficiency Program Update (I)
Monthly report on Water Efficiency program activities.

CC-18. Summary of WaterSmart Innovations Conference (I)
Overview of sessions attended at WaterSmart Innovations Conference.

CC-19. Policy Amendment—Adoption of Revised Records Retention Policy (A)
Consider adoption of Resolution No. 11-2017 establishing a Records Retention Policy and superseding all previous policies.

CC-20. Palm and Sunrise Wells Rehabilitation Project (A)
Consider approval of agreements for construction and engineering services and authorization of a budget amendment to allocate funds totaling $101,800.00 from the Water Supply Reserve for the Sunrise Well and Palm Well Rehabilitation Project.

CC-21. Highland Avenue and Rosa Vista Lane 8" Water Mains Plans, Specifications and Engineering (A)
Request approval of construction bid package for construction bids for the Highland Avenue and Rosa Vista Lane Water Main Replacement project.

CC-22. Approval of Design Services Contract for Pleasant View Drive 8" Water Main Replacement Project (A)
Consider approval of a Design Services Agreement with Warren Consulting Engineers, Inc. to provide drafting and surveying services for the Pleasant View Drive 8" Water Main Replacement Project.

CC-23. Approval of Design Services Contract for Michigan Drive 8" Water Main Replacement Project (A)
Consider approval of a Design Services Agreement with Warren Consulting Engineers, Inc. to provide drafting and surveying services for the Michigan Drive 8" Water Main Replacement Project.

PRESENTATIONS:

P-1. Presentation of 2018 Water Rates, Miscellaneous Fees and Charges and Capacity Charges (A)

Review and discuss the proposed Capacity Fees and Water Rates, Miscellaneous Fees and Charges for 2018.

BUSINESS:

B-1. Award of Contract –Project 2030 Water Main Replacement Study (A)

Consider acceptance of a responsive proposal for the Project 2030 Water Main Replacement Study for the Citrus Heights Water District and approve agreement with Harris and Associates for professional services related to the Project 2030 Water Main Replacement Study.

B-2. Budget Amendment – Transfer of Funds to Water Service Replacements (A)

Consider authorizing a budget amendment to reallocate funds totaling $290,000 within the Capital Improvements Program 2017 Budget.

B-3. Discussion and Possible Action to Approve a Resolution Authorizing Temporary Use of Sick Leave by Employees

Consider adoption of Resolution 12-2017, temporarily authorizing the General Manager to approve the use of Sick Leave by eligible employees evacuated due to the 2017 natural disasters.

CONSULTANTS' AND LEGAL COUNSEL'S REPORTS (I):

None.

DIRECTOR'S AND REPRESENTATIVE'S REPORTS (I):

D-1. Regional Water Authority (Dains).
D-2. Sacramento Groundwater Authority (Sheehan).
D-3. San Juan Water District (All).
D-4. Association of California Water Agencies (Dains).
D-5. ACWA Joint Powers Insurance Authority (Dains/Castruita).
D-6. Sacramento Local Agency Formation Commission (Riehle).
D-7. City of Citrus Heights (Pieri).
D-8. Chamber of Commerce Government Issues Committee (Gordon/Meurer).
D-9. RWA Lobbying Program Update (Gordon/Meurer).
D-10. Other Reports.

MANAGEMENT SERVICES REPORTS (I):

MS-1. Corporation Yard Update.
MS-2. Meter Replacement Study Update.

CORRESPONDENCE:

None.

CLOSED SESSION:

CL-1. Pursuant to Government Code Section 54957

Public Employee Performance Evaluation
Title: General Manager

FUTURE CHWD BOARD OF DIRECTORS MEETING DATES:

November 8, 2017	6:30 PM	Special Meeting
November, 15, 2017	6:30 PM	Regular Meeting
December 20, 2017	6:30 PM	Regular Meeting

ADJOURNMENT:

CERTIFICATION:

I do hereby declare and certify that this agenda for this Regular Meeting of the Board of Directors of the Citrus Heights Water District was posted in a location accessible to the public at the District Administrative Office Building, 6230 Sylvan Road, Citrus Heights, CA 95610 at least 72 hours prior to the regular meeting in accordance with Government Code Section 54954.2.



Dated: October 13, 2017

Hilary M. Straus, General Manager/Secretary

CITRUS HEIGHTS WATER DISTRICT
BOARD OF DIRECTORS REGULAR MEETING MINUTES
SEPTEMBER 13, 2017

The Regular Meeting of the Board of Directors was called to order at 6:30 p.m. by President Sheehan and roll was called. Present were:

Caryl F. Sheehan, President
Raymond A. Riehle, Vice President
Allen B. Dains, Director

Absent:
None.

Staff:
Hilary Straus, General Manager
Susan Sohal, Administrative Services Manager
Chris Castruita, Management Services Supervisor/Chief Board Clerk
David Gordon, Operations Manager
Missy Pieri, Engineering Manager/District Engineer
Kelly Drake, Senior Water Efficiency Specialist

VISITORS:

Stuart Hodgkins, Principle Engineer, City of Citrus Heights
Mersadez Hogan

PLEDGE OF ALLEGIANCE:

Board President Caryl Sheehan led the Pledge of Allegiance.

PUBLIC COMMENT:

None.

CONSENT CALENDAR:

President Sheehan asked for consideration and/or approval of the Consent Calendar consisting of the following action or information items:

Minutes of the Regular Meeting – August 11, 2017.
Revenue Analysis Report for August 2017.
Assessor/Collector's Roll Adjustment for August 2017.
Treasurer's Report for August 2017.
Treasurer's Report of Fund Balances for August 2017.

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Operations Budget Analysis for August 2017.
Capital Projects Summary August 2017.
Warrants for August 2017.
CAL–Card Distributions for August 2017.
Summary of 2017 Employees, Officers and Directors Training Courses, Seminars and Conference.
Employee Recognitions.

Long Range Board Agenda (I)

Board Agenda Items Planned for Upcoming Meetings.

Engineering and Capital Projects Departmental Report (I)

Significant assignments and activities for the Engineering and Capital Projects Department are summarized.

Operations Departmental Report (I)

Monthly report on construction and maintenance activities.

2017 Water Supply – Purchased and Produced (I)

Report on annual water supply including comparison with prior years.

Water Supply Reliability (I)

Receive status report on surface water supplies available to the Citrus Heights Water District (District).

AUGUST 2017 WARRANTS

CHECK	PAYEE	DESCRIPTION	AMOUNT
63816	SWRCB	Dues & Subscriptions	$527.00
63817	ACWA/JPIA	Workers Comp Insurance	$17,956.76
63818	CH&D Architects Inc	Contract Services- Engineering	$8,510.00
63819	CirclePoint	Contract Services- Conservation	$15,636.58
63820	Domenichelli and Associates, Inc	Contract Services- Engineering	$9,022.91
63821	Regional Water Authority	Dues & Subscriptions	$67,944.00
63822	San Juan Water District	Purchased Water	$624,331.13
63823	Sacramento Groundwater Authority	Dues & Subscriptions	$34,263.00
63824	SMUD	Utilities	$8,410.73
63825	US Bank I.M.P.A.C. Government Services	See August Agenda Item CC-9	$14,799.04
63826	West Yost Associates	Contract Services- Engineering	$10,382.07
63827	Debra/Joe L Baldes	Customer Refund	$29.12
63828	Judith Anne Smoot	Customer Refund	$54.94
63829	Brett T Lee	Customer Refund	$6.15
63830	Alejandro D Guimoye	Customer Refund	$11.21
63831	Gillum Family	Customer Refund	$119.11
63832	Asmat Sami Siddiqui	Customer Refund	$86.18
63833	Derik/Michelle Harris	Customer Refund	$54.34

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63834	Steven R/Lindsay A Trop	Customer Refund	$10.00
63835	Ted/Jeana Thompson	Customer Refund	$53.18
63836	David Mojzis	Customer Refund	$232.41
63837	AIA Services, LLC/NDS	Water Conservation-Materials/Supplies	$744.20
63838	Alexander's Contract Services	Contract Services-Meter Reads	$5,070.92
63839	Area West Engineers Inc	Contract Services- Engineering	$5,968.25
63840	Axcient Inc	Maintenance Agreement-Software	$444.30
63841	Betty Ann Bertoglio	Contract Services-Miscellaneous	$3,677.39
63842	City of Citrus Heights	Permit Fees	$1,130.55
63843	County of Sacramento	Permit Fees	$709.00
63844	Cybex	Equipment Rental-Office	$149.21
63845	Gaynor Telesystems Incorporated	Contract Services-Other	$50.00
63846	Government Finance Officers Association	Dues & Subscriptions	$333.00
63847	Mersadez Hogan	Contract Services-Office Labor	$157.44
63848	J4 Systems	Contract Services-Other	$1,567.50
63849	Kei Window Cleaning #12	Janitorial	$94.00
63850	Labor Max	Contract Services-Temporary Labor	$947.38
63851	Moonlight BPO	Contract Services-Bill Print	$5,619.63
63852	Pace Supply Corp	Material	$78.23
63853	Pacific Staffing	Contract Services-Office Labor	$600.00
63854	Protection One Alarm Monitoring	Equipment Rental-Office	$140.00
63855	Red Wing Shoe Store	Small Tools	$985.80
63856	Sonitrol	Equipment Rental-Office	$168.56
63857	A. Teichert & Son, Inc.	Road Base	$5,165.69
63858	Underground Service Alert	Dues & Subscriptions	$4,907.07
63859	Verizon Wireless	Telephone-Wireless	$1,191.51
63860	Vice's Collision Repair	Repair-Trucks	$5,443.73
63861	Charles E/Patricia J Meltzer	Customer Refund	$99.63
63862	Jeanne M Collier	Customer Refund	$18.00
63863	Patricia A Hampton	Customer Refund	$11.29
63864	Thomas M/Jeanne A Pooley	Customer Refund	$165.97
63865	Judith Anne Smoot	Customer Refund	$53.44
63866	Mark W/Christine Eddy	Customer Refund	$167.44
63867	Tamara Weyhe	Customer Refund	$243.69
63868	KB Homes Sacramento Inc	Customer Refund	$2,660.35
63869	Whitney Escoto	Customer Refund	$119.82
63870	ABA DABA Rentals & Sales	Supplies-Field	$553.08
63871	AFLAC	Employee Paid Insurance	$238.56
63872	Afman Supply	Small Tools	$97.04

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63873	Alexander's Contract Services	Contract Services-Meter Reads	$1,664.68
63874	Bryce Consulting, Inc	Legal & Audit	$720.00
63875	State of CA Dept. of Consumer Affairs	Dues & Subscriptions	$115.00
63876	California Landscape Associates Inc	Janitorial	$200.00
63877	California Surveying & Drafting Supply	Small Tools	$227.23
63878	Caltronics Business System	Small Office Equip	$171.32
63879	Robin Cope	Health Insurance	$412.00
63880	Corelogic Information Solutions Inc	Dues & Subscriptions	$196.83
63881	Corix Water Products, Inc	Material	$2,691.63
63882	CSDA	Dues & Subscriptions	$200.00
63883	Domenichelli and Associates, Inc	Contract Services- Engineering	$6,990.00
63884	Employee Relations Inc	Contract Services-Other	$55.50
63885	Express Office Products Inc	Office Expense	$77.29
63886	Gaynor Telesystems Incorporated	Contract Services-Other	$168.83
63887	Gladwell Governmental Services Inc	Contract Services- Financial	$4,380.79
63888	Ferguson Enterprises Inc #1423	Material	$3,763.15
63889	Innovyze	Maintenance Agreement-Software	$1,500.00
63890	Integrity Administrators Inc	Health Insurance	$873.36
63891	J4 Systems	Contract Services-Other	$2,372.50
63892	Safa E Kaddis	Customer Refund	$92.78
63893	Kaiser Foundation Health Plan, Inc	Health Insurance	$18,686.21
63894	KBA DOCUSYS	Equipment Rental-Office	$20.06
63895	KBA Docusys Inc	Equipment Rental-Office	$342.63
63896	San Gabriel Temporary Staffing Svs LLC dba LaborMax	Contract Services-Temporary Labor	$1,222.07
63897	Moonlight BPO	Contract Services-Bill Print	$3,534.13
63898	Occu-Med	Office Miscellaneous	$126.00
63899	Pace Supply Corp	Material	$103.69
63900	Pacific Staffing	Contract Services-Office Labor	$287.50
63901	Evangelina Rangel	Customer Refund	$130.03
63902	Republic Services #922	Utilities	$209.04
63903	Regional Government Services	Contract Services-Other	$2,645.00
63904	RW Trucking	Contract Services-Miscellaneous	$7,600.00
63905	Sacramento Bee	Publication Notices	$431.16
63906	Les Schwab Tires	Repair-Trucks	$206.07
63907	Spot on Signs & Graphics	Contract Services-Office Repair/Maintenance	$820.04
63908	SureWest Directories	Telephone-Local/Long Distance	$49.00
63909	A. Teichert & Son, Inc.	Road Base	$2,329.36
63910	The Lincoln National Life Insurance	Disability & Life Insurance	$6,121.68

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	Company		
63911	United States Treasury	Health Insurance	$72.46
63912	West Yost Associates	Contract Services- Engineering	$2,527.04
63913	Ferguson Enterprises Inc #1423	Material	$2,773.33
63914	Wondries Fleet Group	Fixed Assets	$91,595.72
63915	Harold D Newberry	Customer Refund	$117.63
63916	Timothy R/Tamara J Kuka	Customer Refund	$107.20
63917	Rachelle Hall	Customer Refund	$7.27
63918	Peter Lowell Prince Trust	Customer Refund	$22.40
63919	Marion G/Lina C Panlilio	Customer Refund	$95.06
63920	Magill Family Trust	Customer Refund	$51.57
63921	Justin C/Tammy J Nixon	Customer Refund	$18.47
63922	Pacifica Properties	Customer Refund	$31.05
63923	Bobe Living Trust	Customer Refund	$31.38
63924	Lawrence/Jody L Presto	Customer Refund	$113.66
63925	Aaron D/Amanda M Lott	Customer Refund	$104.08
63926	Ion Necula	Customer Refund	$201.07
63927	Jaime C Walkley	Customer Refund	$9.82
63928	Rebecca M Bogner	Customer Refund	$21.06
63929	Jason Clark	Customer Refund	$6.57
63930	Lazim Hanna	Customer Refund	$112.91
63931	Nathan/Michelle Waddell	Customer Refund	$13.96
63932	ABA DABA Rentals & Sales	Supplies-Field	$169.05
63933	Afman Supply	Small Tools	$373.68
63934	Alexander's Contract Services	Contract Services-Meter Reads	$4,511.33
63935	Bryce Consulting, Inc	Legal & Audit	$1,040.00
63936	Consolidated	Telephone-Local/Long Distance	$1,747.76
63937	Corix Water Products, Inc	Material	$107.75
63938	Heather L Corkery	Toilet Rebate Program	$150.00
63939	Tamar Dawson	Continued Education	$320.27
63940	Ferguson Enterprises Inc #1423	Material	$1,259.85
63941	Bahareh Haghighi	Toilet Rebate Program	$225.00
63942	Herc Rentals	Equipment Rental-Field	$2,325.91
63943	J4 Systems	Contract Services-Other	$2,285.00
63944	San Gabriel Temp Staffing LLC dba LaborMax	Contract Services-Temporary Labor	$1,199.68
63945	Marjorie Lacaillade	Toilet Rebate Program	$75.00
63946	Ljiljana Milijkovic	Toilet Rebate Program	$139.64
63947	Moonlight BPO	Contract Services-Bill Print	$2,907.05

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63948	Natalie Morris	Toilet Rebate Program	$150.00
63949	Pace Supply Corp	Material	$1,129.87
63950	Borey Swing	Continued Education	$40.70
63951	Paul T White III	Toilet Rebate Program	$75.00
63952	Janet J Thornhill Trust	Customer Refund	$55.45
63953	Marissa L Miller	Customer Refund	$20.09
63954	Craig C/Elizabeth Cook	Customer Refund	$126.62
63955	Robert R Gostage	Customer Refund	$27.99
63956	Goree & Thompson Real Estate Inc	Customer Refund	$111.79
63957	Michael J Maher	Customer Refund	$175.42
63958	Robert E Nyblom III	Customer Refund	$8.94
63959	Eric/Bridget Stahl	Customer Refund	$311.87
63960	Crystal Ward	Customer Refund	$77.40
63961	All Cal Disinfectant	Field Miscellaneous	$850.00
63962	AnswerNet	Telephone-Answering Service	$272.35
63963	AREA Restroom Solutions	Equipment Rental-Field	$118.76
63964	Avalon Custodial Care	Janitorial	$695.00
63965	Axcient Inc	Maintenance Agreement-Software	$444.30
63966	Bart/Riebes Auto Parts	Repair-Trucks	$19.38
63967	Best Best & Krieger	Legal & Audit	$7,415.34
63968	BSK Associates	Water Analysis	$508.00
63969	Burketts	Office Expense	$350.19
63970	Capital Rubber Co Ltd	Material	$113.84
63971	Terri L Clemons	Toilet Rebate Program	$150.00
63972	County of Sacramento	Permit Fees	$131.00
63973	Kristen or Michael Durkee	Toilet Rebate Program	$150.00
63974	Edgewood Homeowners Association	Water Conservation-Other	$225.00
63975	Ferguson Enterprises Inc #1423	Material	$3,077.29
63976	Harris Computer Systems	Continued Education	$875.00
63977	Integrity Administrators Inc	Health Insurance	$5,000.00
63978	J4 Systems	Contract Services-Other	$880.00
63979	Johnson Controls	Wells Maintenance	$1,325.00
63980	Kaiser Foundation Health Plan, Inc	Health Insurance	$18,254.37
63981	San Gabriel Temp Staffing LLC dba LaborMax	Contract Services-Temporary Labor	$930.58
63982	Liebert Cassidy Whitmore	Legal & Audit	$1,411.00
63983	Joel Lobato	Toilet Rebate Program	$150.00
63984	Moonlight BPO	Contract Services-Bill Print	$3,432.88
63985	Pacific Gas & Electric	Utilities	$8.79

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63986	Regional Government Services	Contract Services-Other	$7,273.75
63987	River City Staffing Group	Contract Services- Conservation	$7,985.10
63988	Russian American Media	Water Conservation-Other	$400.00
63989	SAWWA	Dues & Subscriptions	$1,600.00
63990	Sophos Solutions	Contract Services-Other	$6,640.00
63991	Verizon Wireless	Telephone-Wireless	$1,220.83
63992	Voyager Fleet Systems Inc	Gas & Oil	$2,075.08
63993	WaterWise Consulting, Inc	Contract Services- Conservation	$350.00
63994	Joseph R/Florence E Redding	Customer Refund	$11.98
63995	Harold Dirks	Customer Refund	$79.85
63996	Bruce C/Anne M Cantrell	Customer Refund	$124.95
63997	Athena A Estes	Customer Refund	$24.94
63998	Deanna A Dorsett	Customer Refund	$23.68
63999	Michael D/Shantel L Hampton	Customer Refund	$151.52
64000	Laura K Shandil	Customer Refund	$7.73
64001	Kennedy Family Living Trust	Customer Refund	$146.42
64002	Patricia A Moratto	Customer Refund	$53.69
64003	LPortal, LLC	Customer Refund	$154.53
64004	Arpi Mikayelyan	Customer Refund	$201.18
64005	Brandon Rein	Customer Refund	$95.88
64006	Dan Nalley	Customer Refund	$48.76
64007	Benjamin D/Kellie O Faubion	Customer Refund	$20.22
64008	Sac Quality Investments Inc	Customer Refund	$6.66
64009	David J Hillyer	Customer Refund	$17.49
64010	Donald J/Jodie E Roberts	Customer Refund	$36.83
64011	Kar B Chua	Customer Refund	$154.29
64012	Capital Nursery Land Investors, L.P.	Customer Refund	$1,589.90
64013	Newland Entities, Inc.	Customer Refund	$1,322.48
64014	Cheng F Wang	Customer Refund	$9.02
64015	Daleo Inc	Customer Refund	$1,485.92
64016	Remax Gold	Customer Refund	$158.51
64017	ABA DABA Rentals & Sales	Supplies-Field	$141.14
64018	Ben or Bonnie Bellotti	Toilet Rebate Program	$3,000.00
64019	Cappo	Dues & Subscriptions	$295.00
64020	City of Citrus Heights	Permit Fees	$2,497.50
64021	Sacramento County Utilities	Utilities	$186.26
64022	Cybex	Equipment Rental-Office	$149.21
64023	Stan Frank	Customer Refund	$300.00
64024	J4 Systems	Contract Services-Other	$2,121.25

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64025	Liebert Cassidy Whitmore	Legal & Audit	$6,771.70
64026	Moonlight BPO	Contract Services-Bill Print	$2,302.40
64027	OCT Academy	Continued Education	$1,050.00
64028	Pace Supply Corp	Material	$11,928.65
64029	Alberto Preciado	Continued Education	$27.94
64030	Regional Government Services	Contract Services-Other	$1,069.33
64031	Sonitrol	Equipment Rental-Office	$168.56
64032	A. Teichert & Son, Inc.	Road Base	$3,693.17
Total			$1,169,091.28
ACH	7/1-7/31/17	Bank Fee	$1,263.25
ACH	8/10/17 PAYDAY	PERS	$16,147.02
ACH	AUG 2017 GASB	PERS	$30,046.58
ACH	GASB68 REPORTING FEE	PERS	$1,050.00
ACH	JULY 2017	Bank Fee	$1,542.75
ACH	JULY 2017 FD	Bank Fee	$226.13
ACH	JULY 2017 PH	Bank Fee	$132.90
ACH	JULY 2017 S FEE	CS-Other	$386.30
ACH	JULY 2017 WB	Bank Fee	$2,517.08
ACH	PERS 8/24/17 P DAY	PERS	$16,345.68
ACH	VALIC 8/10/17 PDAY	Deferred Compensation	$3,692.50
ACH	VALIC 8/24/17 P DAY	Deferred Compensation	$3,692.50
ACH	VANCO JULY 2017	CS-Other	$92.02
ACH	VOYA 8/10/17 PDAY	Deferred Compensation	$25.00
ACH	VOYA 8/24/17 P DAY	Deferred Compensation	$25.00
ACH	WHA SEPT 2017	Health Insurance	$13,684.34
Total			$90,869.05
Grand Total			$1,259,960.33
September Checks Approved at September Board Meeting			
64033	CirclePoint	Contract Services- Conservation	$9,251.25
64034	Miles Treaster & Associates	Office Expense	$16,954.00
64035	Pace Supply Corp	Material	$11,928.65
64036	RW Trucking	Contract Services-Miscellaneous	$10,837.50
64037	SMUD	Utilities	$9,232.02
			$58,203.42

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Employee Recognitions—Seventeen employees received recognition for attendance during August 2017, and twenty-one were recognized for outstanding customer service and quality of work during the month of August 2017. Directors were provided with a list of the employees and items for which each received recognition.

The Long Rage Board Agenda was provided showing Directors upcoming items for future scheduled Board Meetings.

Engineering Department Report

The Engineering and Capital Projects Department staff presented a report on the following activities during the month of September 2017.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PROJECT 2030 Water Main Replacement Project	Engineering	Missy Pieri	On-going	**Yes, 10/18/17 (Anticipated Award of Contract)**	Yes	2017-2018 Masterplan for replacement of mains installed in 1960-1985.	**Award of contract anticipated for October 18th Board Meeting.**
CAPITAL IMPROVEMENT PROJECT Corporation Yard Safety Improvements Project	Engineering	Paul Dietrich	On-going	**TBD**	Yes	2017 design and construction of Vacuum Spoils Disposal, Wash Station, Materials Storage, and Safety and Efficiency Upgrades.	**Notice to Proceed started calendar 08/10/17. Grading underway.**
CAPITAL IMPROVEMENT PROJECT Corporation Yard / Facilities Master Plan Buildout	Engineering	Paul Dietrich	On-going	**TBD**	Yes	2017-2018 Masterplan for facilities requirements through 2040.	**Project is currently on hold due to other priorities. Current plan is to start work again in early summer 2018.**
CAPITAL IMPROVEMENT PROJECT Highland Ave & Rosa Vista Ln 8" Water Mains	Engineering	Missy Pieri/ Tamar Dawson	On-going	**Yes, 10/18/17, PS&E for approval to bid**	Yes	2017 design and construction. Potholing complete.	Notice of Exemption posted on 05/31/17. Easement drafts complete. **Coordinating 90% plans with City of CH storm drain plans and preparing contract.**
CAPITAL IMPROVEMENT PROJECT Wind Way and Longwood Way 8"	Engineering	Tamar Dawson/ Paul Dietrich	On-going	Yes, TBD	Yes	2017 design, 2018 construction	**Locator tracing to be done 09/07/17. Waiting for on-call pothole contract creation.**

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Water Mains							
Items of Interest	**Department**	**Point of Contact**	**Date**	**To Board? If so, Date**	**Strategic Planning Item**	**Item Description**	**Update from Last Report**
PRIVATE DEVELOPMENT Northridge Grove - 5555 Mariposa Ave 47 Condominiums	Engineering	Neil Tamagni	On-going	Yes, TBD	No	95% Complete	**Valve boxes will be completed during pavement placement.**
PRIVATE DEVELOPMENT Commercial Building Remodel - 5414-50 Sunrise Blvd	Engineering	Neil Tamagni	On-going	Yes, TBD	No	Pre-Con Meeting 12/01/16	**12" water main installed on 08/25/17. Water main testing pending. Easements pending.**
PRIVATE DEVELOPMENT Louis-Orlando Bus Transfer Point - Louis Ln at Orlando Ave	Engineering	Neil Tamagni	On-going	Yes, TBD	No	Plans Signed 02/04/16	Water construction began 05/24/17. District crews replaced section of main. Waiting for pavement and valve box installation.
PRIVATE DEVELOPMENT Meier Estates - North Sims Way 7 Lot Subdivision	Engineering	Missy Pieri/Neil Tamagni	On-going	Yes, TBD	No	7 Lot Subdivision by developer. Water main contractor is Blackrock.	**Water mains installed and hydrostatic pressure test complete. Bacteriological testing and water meter setters pending.**
PRIVATE DEVELOPMENT Dignity Health Building - 7115 Greenback Ln	Engineering	Missy Pieri/Neil Tamagni	On-going	Yes, TBD	No	Medical Office Building by developer. Plans Signed 06/08/16	Submittals pending. Building under construction. Utilities to begin in 09/2017 after building is erected.
PRIVATE DEVELOPMENT 3 Lot Residential Subdivision - 5648-5696 San Juan Ave	Engineering	Missy Pieri	On-going	No	No	Plans Signed 11/14/16	
PRIVATE DEVELOPMENT 7940 Patton Ave - Replace Existing Home	Engineering	Missy Pieri	On-going	No	No	Plans Signed 01/11/17. Single Family Dwelling - Replace 1" water service to new home.	All fees paid. Project being completed by Operations.

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Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PRIVATE DEVELOPMENT 7311 Hickory Ave	Engineering	Missy Pieri	On-going	No	No	Single Family Dwelling - Install 1" water service with backflow to new home.	All fees paid. Project given to Operations for them to complete the water service/backflow installation. **Inclusion/Exclusion Map updated with annexation date for parcel on 08/29/2017.**
PRIVATE DEVELOPMENT Mitchell Farms - 7925 Arcadia Drive	Engineering	Missy Pieri/Tamar Dawson	On-going	Yes, TBD	No	200-300 unit development by Watt Communities.	2nd plan submittal received and reviewed on 05/31/17. Received draft agreement for Exchange of Real Property from BBK on 06/19/17 for review. Anticipate bringing to the Board in the coming months. **Project under Environmental Review.**
PRIVATE DEVELOPMENT Mariposa Creek Subdivision - Antelope Road	Engineering	Tamar Dawson/ Missy Pieri	On-going	No	No	15 lot subdivision located on Antelope Road.	Plans received 06/29/17, staff reviewing plans. **Reviewed plans sent back with CHWD comments on 08/24/2017.**
PRIVATE DEVELOPMENT Citrus Place Subdivision	Engineering	Tamar Dawson/ Missy Pieri	On-going	No	No	7 lot subdivision located near Wachtel Way & Talbot Way	Plans received 06/06/17. Staff researched old plans from 2007. Staff preparing a Will Serve Letter. **Will Serve letter written, determining recipient list 08/29/2017.**
PRIVATE DEVELOPMENT 8405 Sunrise Blvd - New SFD (Twin Oaks & Sunrise)	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	New home proposed on lot. New meter requested.	**Customer brought in rough plans for new home requiring new water service on 08/09/2017. Plans reviewed. Fees paid. Service request sent to Ops.**
PRIVATE DEVELOPMENT 7312 Veteran Ln - New SFD	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	New home proposed on lot. New meter requested.	**Customer brought in plans for new home requiring new water service on 08/14/2017. Plans reviewed. Customer needs flow test for fire.**

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Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PRIVATE DEVELOPMENT 7581 Sycamore Dr - Parcel Split 1 - 3	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	Parcel being split into 3 for 3 home subdivision .	**Plans received for tentative parcel split 08/22/2017. Under review. This is a re-submittal of a previous plan in 2016.**
PRIVATE DEVELOPMENT 8027 Holly Dr - Parcel Split 1 - 3	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	Parcel being split into 3 for 3 home subdivision.	**Tentative Parcel Map received 08/21/2017. Will Serve letter sent 08/29/2017.**
PRIVATE DEVELOPMENT Sunrise Blvd_5437-5439 - Sunrise Village Retail Center - parcel split	Engineering	Missy Pieri/Tamar Dawson	On-going	TBD	No	Parcel being split into 3 for individual sales that previously occurred	**Tentative Parcel Map received 08/16/2017. Reviewing District facilities and easements.**
CITY OF CITRUS HEIGHTS PROJECT City Drainage Project	Engineering	Tamar Dawson/ Borey Swing	On-going	Yes, TBD	Yes	Highland Ave, Wonder St, Dana Butte Way, and Sunhill Dr Storm Drain Project.	**"B" Plans sent back 08/21/2017 with comments. Coordinating utility conflicts.**
CITY OF CITRUS HEIGHTS PROJECT Sunrise Blvd Complete Streets Phase 2A (C16-142)	Engineering	Missy Pieri/Tamar Dawson	On-going	Yes, TBD	Yes	Frontage Improvements along West Side of Sunrise from Sayonara to North and Storm Drain Improvements	Received updated plans on 06/27/17. Anticipate bid and start of construction in Spring 2018. **Coordinating utility conflicts.**
CITY OF CITRUS HEIGHTS PROJECT Mariposa Ave - Safe Routes to School Phase III	Engineering	Missy Pieri/Tamar Dawson	On-going	Yes, TBD	Yes	Frontage Improvements along West side of Mariposa Ave from Northridge to Eastgate	**Received utility conflict maps.**
CITY OF ROSEVILLE PROJECT Fair Way Intertie (C15-101)	Engineering	Missy Pieri/Neil Tamagni	On-going	Yes, TBD	Yes	Intertie with City of Roseville on Fair Way.	**Preconstruction Mtg with City of Roseville & Operations on 08/30/17. Site Visit scheduled 09/06/17. Anticipate Start Construction in 2 weeks.**
Annexations	Engineering	-	2018	Yes, TBD	Yes	Strategic Planning Item	
Easements	Engineering	-	2018	Yes, TBD	Yes	Strategic Planning Item	

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Operations Department Report.

Operations Manager Gordon reported as follows:

A total of 86 work orders were performed during the month of August by field operations crews, administration field crews and contractors. The results of recent bacteriological testing, a total of 72 samples, have met all California Department of Drinking Water (DDW) requirements.

2017 Water Supply – Purchased and Produced.

The District's total water use during the month of August 2017 (1,570.80 acre-feet) was 18.4% below that of August 2013 (1,924.28 acre-feet).

Surface Water Supply Reliability

As of September 1, 2017, storage in Folsom Lake (Lake) was at 773,707 acre-feet, 79 percent of the total capacity of 977,000 acre-feet. This represents a decrease in storage of 105,845 acre-feet in the past month.

The District's total water use during the month of August 2017 (1570.80 acre-feet) was 18.4 percent below that of August 2013 (1924.28 acre-feet).

The District continues to assist with preserving surface water supplies in the Lake by operating its groundwater wells. The District's groundwater production wells, Bonita, Mitchell Farms, Skycrest, and Sylvan, are operational and used on a rotational or as-needed basis.

Water Efficiency Program Update

Senior Water Efficiency Specialist Drake provided the Water Efficiency program updates below.

ACTIVITIES AND PROGRESS REPORT
Water Efficiency Program activities during the month of August 2017 include:

- 33 ultra-low-flush toilet (ULFT) rebates were processed for the month of August. A total of 111 ULFT rebates have been processed for a total of $8,305.00 year to date.

- For the period of January-August, 11 High Efficiency Clothes Washer (HECW) rebates were processed. Year-to-date, 11 HECW rebates were processed by the Sacramento Municipal Utility District (SMUD) for District customers.

- 47 water waste calls were received during the month of August. 0 reports of water waste were received through CHWD's Drought Resources web page. An additional 8 service requests were generated by staff. A total of 35 contacts (mostly visits to customers' homes and phone calls) have been completed based on these reports.

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- Staff completed and submitted the District's Wave 4 Water Loss documentation required by SB 555. The Department of Water Resources (DWR) is proceeding to finalize and validate all Wave 4 documents submitted. DWR will issue instructions to the District on how to upload the documents by mid-September. Once the documents are uploaded to DWR, the District will complete the required validation process for 2016.

- An Ecolandscape class was held on Saturday, August 12 from 9:00 am-12:00 pm. The class title was "Keeping Your Eco-Friendly Landscape Looking Great With Less Water, Less Work and Fewer Chemicals". Nearly 40 customers attended the class. Staff is in the process of setting up the Districts first weeknight Ecolandscape class in the fall. The class will cover fall gardening topics.

- The following table summarizes the Residential Gallons Per Capita Per Day (R-GPCD) values for CHWD to date:

Month	R-GPCD 2016	R-GPCD 2017	% CHANGE
January	80	75	-06%
February	77	72	-06%
March	77	80	04%
April	107	87	-19%
May	155	166	07%
June	213	213	0%
July	237	241	02%
August	242		
September	189		
October	123		
November	85		
December	76		

Below is a recap of the region's overall water saving in July 2017 as compared to 2013.

REDUCTION BY AGENCY (Data compared to 2013)		
Water Agency	July 2017 Reduction	June 2016 - July 2017 Reduction
City of Woodland	29.2%	26.8%
Del Paso Manor Water District	22.9%	26.5%
California American Water	19.8%	28.1%
Citrus Heights Water District	19.8%	25.8%
City of Sacramento	19.7%	25.9%
Orange Vale Water Company	19.4%	30.3%
City of West Sacramento	19.3%	24.2%

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REDUCTION BY AGENCY (Data compared to 2013)		
Rio Linda/Elverta CWD	19.3%	24.2%
Sacramento Suburban WD	19.0%	22.7%
Golden State Water Company	17.5%	21.4%
City of Yuba City	17.0%	23.1%
Elk Grove Water District	17.0%	24.9%
City of Davis	16.2%	22.6%
San Juan Water District	15.6%	25.2%
Fair Oaks Water District	15.3%	26.2%
Carmichael Water District	15.2%	25.0%
Placer County Water Agency	14.5%	18.0%
El Dorado Irrigation District	12.3%	21.4%
City of Roseville	11.2%	22.4%
Sacramento County Water Agency	10.8%	19.9%
Rancho Murieta CSD	9.7%	22.2%
City of Lincoln	8.7%	20.3%
City of Folsom	6.2%	12.1%
Average	16.3%	23.4%
Minimum	6.2%	12.1%
Maximum	29.2%	30.3%

ACTION: Director Dains moved and Director Riehle seconded a motion to accept the Consent Calendar.

The motion carried 3-0 with all Directors voting yes.

PRESENTATIONS:

None.

BUSINESS:

Discussion and Possible Action to Approve Utility Agreement No. 20-14-003-01 with the City of Citrus Heights

Engineering Manager/ District Engineer Pieri and Stuart Hodgkins, Principle Engineer for the City of Citrus Heights, asked the Board to consider approval of a Utility Agreement between the City of Citrus Heights and Citrus Heights Water District for the Mariposa Avenue Safe Routes to School Phase III

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Project.

The City of Citrus Heights (City) proposes to construct curb, gutter, sidewalk, bike lane, street lights, and storm drain improvements on Mariposa Avenue in Citrus Heights. Citrus Heights Water District (District) owns and maintains water facilities within the limits of the City's project, specifically in the City's right-of-way, that will require relocation of said facilities to accommodate the City's project. The District's water facilities will need to be relocated prior to the City's project, which is anticipated to commence in the Spring of 2018.

The City is receiving federal funds for this project, which requires Utility Agreement No. 20-14-003-1 (see Attachment 1) to be approved by the Citrus Heights Water District. The approval of the Utility Agreement is a critical path item for the City, which will promote pedestrian safety for children walking to Skycrest Elementary School along Mariposa Avenue.

The City is under contract with Drake Haglan and Associates to prepare plans and specifications for said project, titled Mariposa Avenue Safe Routes to School Phase III. The 90% Submittal (see Attachment 2) identifies four locations where the existing water main may need to be relocated to accommodate the City's project. It is anticipated that the cost to complete the above work will not exceed $50,000.

The relocation of the District's water mains will be performed by District staff.

The District has funding of $50,000 under Project Number C17-040, Other City Partnership Opportunities, and $50,000 under Project Number C17-041, Other Miscellaneous Infrastructure Projects, both of which have typically been used in the past to fund such projects. Both funding sources are available for use for this project.

ACTION: Director Dains moved and Director Riehle seconded a motion to authorize the General Manager to execute Utility Agreement No. 20-14-003-01 with the City of Citrus Heights, and to authorize the expenditure of an amount not to exceed $50,000 from Project Number C17-040, Other City Partnership Opportunities.

The motion carried 3-0 with all Directors voting yes.

Proposed Water Rates, Operations and Capital Improvement Budget for FY 2018

General Manager Straus, Administrative Services Manager Sohal, Management Services Supervisor/Chief Board Clerk Castruita, Engineering Manager Pieri, Operations Manager Gordon and Senior Water Efficiency Specialist Drake reviewed and discussed the draft Operating and Capital Improvement Budgets and proposed water rate schedule for 2018.

The following recommendations were presented to the Board for consideration:

- A 2018 Operating Budget of $12.18 million, representing an overall increase of about $2.08 million, or 20.64% above 2017 authorized budget levels. A significant portion of the new expense items implement Strategic Planning items Identified by the Board as priorities for 2018. This proposed increase is funded by a projected increase in revenue and is a balanced budget.

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- A 2018 Capital Improvement Budget of $5.07 million in 2018 projects, with another $1.62 million in projects carried over from prior years. The total 2018 Capital Improvement Budget is $6.69 million.

- Proposed 2018 Water Rate Adjustment of 3% rate increase, which is modeled through CHWD's Financial Plan.

As the Citrus Heights Water District plans for 2018, some of the key issues the budget addresses are as follows:

- **Economic activity.** The recent upswing in building and economic activity in the area has a spillover effect on workload in various areas of District operations, from increased need for Operations staff to cover in house projects to greater customer service activity related to buying and selling of property. With building activity on the rise, the District is beginning to see the effect in the form of higher bids for projects.

- **Addition of Water Meter Technician and Principal Information Technology (IT) Analyst.** The proposed budget options reflect the addition of a Principal IT Analyst and Water Meter Technician to more effectively staff the District as opposed to utilizing temporary/contract help.

- **Water Supply Agreement with San Juan Wholesale District**.
In June 2017, the SJWD Board of Directors adopted a 9% Overall Wholesale Water Rate Adjustment. This increase is projected to result in an 8.03% aggregate increase for the District in purchased water. The difference in the percentages shown is a result of SJWD's change in its rate structure.

- **Retirement Benefits including Pensions and Other Post-Employment Benefits (OPEB).** Changes to Government Accounting Standards require unfunded liabilities including PERS pension costs and retiree healthcare benefits to be reported on Financial Statements. Senior Accountant Preciado described the potential impacts these new Government Account Standards could have on the District and its financial position. The proposed budget would prefund OPEB over 20 years, rather than paying costs as they are incurred, thereby saving the District an estimated $140,000 over the next 30 years. At the same time, the proposed budget would move the District to a 15-year Amortization Schedule for CalPERS Unfunded Accrued Liability, saving the District $320,820 on its 2018 Unfunded Accrued Liability (UAL) Contribution, smoothing UAL contributions over the next 15 years, and saving the District $1,201,244 over the next 30 years.

- **Well Development's Impact on other Capital Improvement Projects.** With the expected acceleration of the development of two wells prior to 2022, Operations Manager Gordon explained that staff expects well development projects to redirect the majority of Capital Improvement Program funds away from water main projects in the years that a well development project is scheduled to be constructed. This would have a negative impact on both schedule of replacing

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water mains and workload of Engineering staff. To resolve this issue the recommended budget would include transfers of $1,150,000 annually into Water Supply Reserve to develop adequate reserve levels for use during the years that well development projects are scheduled.

Preliminary 2018 spending proposed for operations and capital improvements were summarized below.

Operating Budget: $12.18 million, increase of 20.64%, or $2.08 million from the 2017 budget.

- $228,919 or 8.03% aggregate increase in cost of treated water cost from San Juan Water District. The projected quantity of water estimated to be purchased is 12,000 AF.
- $1.61 million increase in Professional Services, including many Strategic Planning items, for the planning of Project 2030 Study, Water Meter Replacement Program, ASR Study, organizational development, District policy review/update, rebuild of the rate model, review of the CEQA process for CIP's, review of easements, LAFCo and annexations, website redesign, Water Supply Agreement, Intertie Agreements.
- $46,615 increase in annual permit fees by the State Water Control Resources Board.
- $185,840 increase in Employee Benefit – Retirement for the OPEB Unfunded Actuarial Liability (UAL) payment and CalPERS UAL payment.
- An aggregate salary adjustment of 4.5% which includes both a merit and Cost of Living Adjustment increase.
- $35,000 increase in Election Expense for the 2018 elections for placing a District election on the Sacramento and Placer County ballots.

About $550,000 in salary and benefit costs are allocated to the Capital Improvement Budget to account for time spent in the planning, design, construction and inspection of capital projects by District employees.

Capital Improvement Budget: A 2018 Capital Improvement Budget of $5.07 million in 2018 projects, with another $1.62 million in projects carried over from prior years. The total 2018 Capital Improvement Budget is $6.69 million.

Project highlights include:

- Replacement of aging customer water services budgeted at $850,000.
- Replacement, upgrades and new fire hydrants for $154,500.
- Operations Building Remodel/Reinvestment project scheduled design started in 2017 with construction targeted for 2019.
- Five water main replacement or installation projects scheduled to start design in 2018 with construction targeted for 2019.

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- Operations equipment replacements and new equipment totaling $140,000 for 2018.
- Carryover of Upgrades/Replacements of $250,000 for the Document Management system in 2018.
- Groundwater Well property acquisition carryover of $740,000.
- Groundwater Well No. 8, with design scheduled to start in 2018 at a total cost of $257,500.

Designated Reserves Transfers:

- Reflects a transfer of $100,000 to replenish the Rate Stabilization Reserve in 2018.
- Replenishment of the Water Efficiency Reserve of $50,000.
- Accrual of the Water Supply Reserve of $1,150,000.
- Maintain transfer of $300,000 Water Meter Replacement Reserves for accrual of funds toward Meter Replacements at the end of their useful life, projected to start in 2025.

Total Operating and Capital Budgets for 2018:

Total Funding Requirements for 2018 Budgets: $19.02 million
(Operating Budget + CIP Budget + transfers to Designated Reserves)
($12.19 million + $5.07 million + $1.76 million = $19.02 million)

Water Rates and Charges Overview

The Board of Directors is considering a 3% rate adjustment for 2018 to support operation of the District and continued reinvestment in the District's infrastructure.

Proposition 218 Notification

The District must provide written notification of proposed water rate adjustments to all property owners within the District in accordance with the requirements of Proposition 218. The notification must be received a minimum of 45 days in advance of the public hearing where the rate adjustments are to be considered. If the Board of Directors elects to consider an increase in water service charges or usage charges for 2018, the District must prepare and mail a Proposition 218 notification not later than September 25, 2017 in order to meet the notification requirement for a public hearing at the Board's November 08, 2017 Special Meeting.

Miscellaneous charges and fees that apply to specific services provided by the District, such as plan check and inspection charges, service installation charges and capacity fees, are not subject to Proposition 218 notification requirements. The proposed fee schedule will be presented in the October Board of Directors meeting for review, discussion and possible action in November.

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Public Information and Public Engagement Program for the 2018 Budget

At the August 30th Budget Study Session, staff indicated it would continue with the *Public Information and Public Engagement Plan* to help inform customers concerning key issues facing the District (e.g., increasing costs from San Juan Water District, aging infrastructure that is in need of replacement, and the importance for the District to continue its groundwater well development program), and would be developed in conjunction with the budget and rate adoption process this year.

The information and engagement strategy is divided into three parts: 1) Identifying key "Audiences"; 2) Articulating key "messages"; and 3) Identifying the "channels" for communicating and engaging with customers.

Key messages and themes will be developed: 1) With the proposed rate increase, Citrus Heights Water District will continue to maintain relatively low water rates in comparison to the Sacramento region; 2) the rate increase is important to ensure that the District is able to replace aging infrastructure; 3) The ability to replace aging infrastructure, and to expand the District's access to groundwater by developing wells is vital to ensuring long term reliability of supply at relatively low cost to the customer; 4) The District maintains a low cost structure in terms of on-going operational expenses, and the rate increase will enable to the District to replace infrastructure and expand its groundwater supply at lower cost in "today's" versus "tomorrow's" dollars; 5) The proposed rate increase, based on average consumption for a family of four in a single family home with a one-inch water meter, is about $1.68 per month; 6) The District prides itself in operating in an open and transparent manner and will continue to do so; and 7) The rate increase will enable the District to continue to plan for the future, and prevent sliding into a "reactive mode" of operating and providing service to customers.

Key channels for educating and engaging customers include: the Proposition 218 Notice; a Hand-out/Mailer; new informational web page (similar to the District's new Drought Resources web page); in-person meetings with stakeholder audiences; "road show" PowerPoint provided by key staff (General Manager, Engineering Manager, Operations Manager and Administrative Services Manager) to the City's neighborhood associations and the Orangevale CPAC; and use of the District' Facebook wall.

These activities will take place in the time leading up to the Board's consideration of adopting the 2018 budget and rate increase on November 08, 2017.

The Board discussed the information presented. Director Dains requested research in regards to why State Water Resource Control Board fees have increased by such a significant margin.

CONSULTANTS' AND LEGAL COUNSEL'S REPORTS:

None.

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DIRECTOR'S AND REPRESENTATIVES REPORTS:

Regional Water Authority (Dains, Straus)
No report.
Sacramento Groundwater Authority (Sheehan)
No report.
San Juan Water District (All)

Director Riehle reported that the San Juan Water District received 16 applicants for their open board position.

Association of California Water Agencies (Dains)
No report.
ACWA Joint Powers Insurance Authority (Dains/Castruita)
No report.
Sacramento Local Agency Formation Commission (Riehle)
No report.
City of Citrus Heights (Pieri)
No report.
Chamber of Commerce Government Issues Committee (Gordon/Meurer)

General Manager, Straus, Management Services Specialist/Clerk of the Board, Castruita and Operations Manager Gordon attended a Citrus Heights Chamber of Commerce luncheon on September 12, 2017. The keynote speaker of the luncheon was County Supervisor, Sue Frost.

RWA Lobbying Program Update (Gordon/Meurer)
No report.

Other Reports
No report.

MANAGEMENT SERVICES REPORT:

Corporation Yard Safety Improvements Update

Engineering Manager/District Engineer Pieri provided an update on the status of the Corporation Yard Safety Improvements Construction Project currently under construction by PnP Construction, Inc. Construction support throughout the project is being provided by CHWD's construction manager, Domenichelli and Associates. Pieri discussed the timeline of completion of the Corporation Yard. The project is expected to be substantially complete by December 2017, weather permitting. Light fixtures, building color and roof color options were presented to the Board. The Board provided consensus direction to move forward with the recommended light fixtures, building color and roof color option.

Meter Replacement Study Update

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Staff provided an update to the Board on the status of the Meter Replacement Program Request for Proposals (RFP). Staff updated the Board on CHWD's progress in working with several surrounding water districts to develop a multi-agency Water Meter Replacement and Operations program.

CORRESPONDENCE:

None.

CLOSED SESSION:

None.

FUTURE CHWD BOARD OF DIRECTORS MEETING DATES:

Dates and locations of upcoming Regular Meetings of the Board of Directors were noted for the calendar.

ADJOURNMENT:

There being no other business to come before the Board, the meeting was adjourned at 8:36 p.m.

APPROVED:

CHRISTOPHER CASTRUITA	CARYL F. SHEEHAN, President
Chief Board Clerk	Board of Directors
Citrus Heights Water District	Citrus Heights Water District

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CITRUS HEIGHTS WATER DISTRICT

SEPTEMBER 2017

2017 REVENUE ANALYSIS

Outstanding Recievables

Aged Trial Balance					
Total[1]	Current	31-90	91-150	>150	Unapplied Current
947,028	690,718	147,174	5,316	203,958	(100,138)

General Ledger Balance	Total
Outstanding A/R	1,039,492
Outstanding Liens	0
Unclaimed Funds	5,544
Outstanding Grants	1,247
Less Unapplied Payments	(99,674)
Total	$ 946,609

ASSESSOR/COLLECTOR'S ROLL ADJUSTMENTS FOR
September 30, 2017

Board Of Directors
Citrus Heights Water District

Assessor/Collector Roll Adjustment			
September-17			
		Dollar	Count
DEFAULT			
One Time Courtesy	$	82.44	12
InvoiceCloud Error	$	7.56	1
Bankruptcy	$	4.29	1
DEFAULT Total	**$**	**94.29**	**14**
DISCONNECT CHG			
New Owner	$	98.00	1
DISCONNECT CHG Total	**$**	**98.00**	**1**
3-DAY DOOR HANG			
One Time Courtesy	$	23.00	1
New Owner	$	23.00	1
3-DAY DOOR HANG Total	**$**	**46.00**	**2**
Grand Total	**$**	**238.29**	**17**

Pursuant to Policy No. 7315 the following charges have been cancelled.

Reason For Cancellation	Charge Type	Amount
Bankruptcy	DEFAULT	4.29
InvoiceCloud Error	DEFAULT	7.56
New Owner	3-DAY DOOR HANG	23.00
New Owner	DISCONNECT CHG	98.00
One Time Courtesy	3-DAY DOOR HANG	23.00
One Time Courtesy	DEFAULT	5.89
One Time Courtesy	DEFAULT	5.39
One Time Courtesy	DEFAULT	9.93
One Time Courtesy	DEFAULT	5.86
One Time Courtesy	DEFAULT	5.49
One Time Courtesy	DEFAULT	10.33
One Time Courtesy	DEFAULT	5.98
One Time Courtesy	DEFAULT	5.59
One Time Courtesy	DEFAULT	6.53
One Time Courtesy	DEFAULT	6.08
One Time Courtesy	DEFAULT	10.62
One Time Courtesy	DEFAULT	4.75
		$ 238.29

TREASURER'S REPORT TO THE BOARD OF DIRECTORS
CITRUS HEIGHTS WATER DISTRICT
Month of September 2017

Bank of the West			
Beginning Balance			$4,949,542
RECEIPTS:		1,458,042	
Fraudulent Checks Reimbursement*		8,967	
DISBURSEMENTS:			
Checks Issued / ACH Payments	821,224		
Payroll	281,044		
Returned Checks	2,739		
		1,105,007	362,002
Bank of the West			
Balance per Bank July 31, 2017			5,311,543
Outstanding Checks			(59,144)
Deposit in Transit			72,460
Balance Per Books July 31, 2017			$5,324,858

RECONCILEMENT:	
Bank of the West	$5,324,858
Local Agency Investment Fund	6,105,409
COP Reserve Account	534,714
Money Mkt Activity Account	530,562
TOTAL BALANCE	$12,495,544

CASH & INVESTMENT SUMMARY:	
Bank of the West (General Account)	$5,324,858
Local Agency Investment Fund	6,105,409
COP 2010 Reserve Account	534,714
Money Mkt Activity Account	530,562
Total	$12,495,544

INSTITUTION	MATURITY DATE	INT RATE	DEPOSIT AMOUNT	DATE OF LAST TRANSACTION
Local Agency Investment Fund	**Daily**	**0.92%**	**14,027.62**	**7/14/2017**

I certify that this report accurately reflects all pooled investments and is in compliance with applicable State of California Government Codes and is in conformity with Investment of District Funds Policy 6300. As Treasurer of the Citrus Heights Water District, I hereby certify that sufficient investment liquidity and anticipated revenue are available to meet the next six months' estimated expenditures.

SUSAN K. SOHAL, Treasurer

HILARY M. STRAUS, Secretary

Signed: 10/10/2017

* Fraudulent checks were negotiated on the District's main bank account in the amount of $13,006 on August 30th and August 31st, 2017. On August 31st, District staff contacted CHWD's bank and reported the fraudulent activity. As a result, the transactions from the 31st were able to be rejected by the bank, and $8,967 was returned to the District's account on September 1, 2017. The District has filed a claim with the bank for a refund of the remaining $4,040. District staff is continuing to monitor CHWD's bank account for counterfeit checks and, as of October 10, 2017, has successfully stopped an additional 16 checks totalling over $24,000 from being paid.

TREASURER'S REPORT OF FUND BALANCES
September 30, 2017

	Beginning Balance 01/01/2017	Year to Date Transfers In / Collections	Year to Date Transfers Out	Current Month Transfers In / Collections	Current Month Transfers Out	Ending Balance 09/30/2017	2017 Target Balance per Policy
Operating Fund	$ 3,040,083	$ 34,792,487	$ (34,686,089)	$ 1,467,009	$ (1,105,007)	$ 3,508,483	$2,334,017
Operating Reserve	$ 1,912,263	$ 3,420,802	$ (2,357,779)			$ 2,975,286	N/A
Rate Stabilization Fund	$ 634,000	$ 200,000				$ 834,000	$1,000,000
Capital Improvement Reserve	$ 845,856	$ 10,477,945	$ (8,669,776)			$ 2,654,025	$2,644,621
Restricted for Debt Service	$ 536,963					$ 536,963	N/A
Water Supply Reserve	$ -	$ 200,000				$ 200,000	N/A
Water Efficiency Reserve	$ -	$ 150,000				$ 150,000	$200,000
Water Meter Replacement Reserve	$ -	$ 1,025,000				$ 1,025,000	N/A
Fleet Equipment Reserve	$ 291,569	$ 200,000	$ (141,500)			$ 350,069	$318,559
Employment-Related Benefits Reserve	$ 396,310	$ 240,000	$ (379,449)			$ 256,862	$864,229
	$ 8,465,213	**$ 50,706,234**	**$ (47,042,761)**	**$ 1,467,009**	**$ (1,105,007)**	**$ 12,490,688**	

SUSAN K. SOHAL, Treasurer

TREASURER'S REPORT OF FUND BALANCES
September 30, 2017

Fund Transfers Summary:

The Operating Fund Transferred:	$	1,467,009	from funds collected in August 2017 per Treasurer's Report
	$	(1,105,007)	disbursements made in August 2017 per Treasurer's Report
	$	362,002	

Citrus Heights Water District
Budget Performance Report
As of 9/30/2017

	September Actual	Year-to-Date Actual	Year-to-Date Budget	YTD Variance Amount	YTD Variance Percent	Annual Budget
Revenues						
Metered Service Charges	$547,467.28	$6,445,997.79	$6,253,591.23	$192,406.56	3.08%	$8,377,902.51
Metered Water Deliveries	470,247.01	3,191,161.03	3,212,913.35	(21,752.32)	-0.68%	4,463,092.68
Penalties	18,649.59	140,961.31	109,180.14	31,781.17	29.11%	150,000.00
Interest		26,918.64		26,918.64	0.00%	
New Account, Fire & Backflow Fees	5,949.78	113,407.43	105,092.91	8,314.52	7.91%	140,179.96
Water Service Install & S&R		16,625.92	13,051.53	3,574.39	27.39%	17,409.00
Miscellaneous *	5,410.34	1,143,579.71	90,346.32	1,053,233.39	1165.77%	120,509.97
Income - Wheeling Water		3,058.71	2,998.80	59.91	2.00%	4,000.00
Income - Connection Fees		23,692.00	19,961.55	3,730.45	18.69%	26,626.05
Total Revenue	1,047,724.00	11,105,402.54	9,807,135.83	1,298,266.71	13.24%	13,299,720.17
*includes Assessments, Inclusions, Back Charges, Capacity Fee and other Miscellaneous Revenue Sources						
Operating Expenses						
Water Demand Management						
Water Demand Management - Postage			3,748.50	(3,748.50)	-100.00%	5,000.00
Water Demand Management - Printing	124.66	249.32	15,743.70	(15,494.38)	-98.42%	21,000.00
Water Demand Management - Materials and Supplies	2,251.43	10,608.86	10,870.65	(261.79)	-2.41%	14,500.00
Water Demand Management - Contract Services	12,662.08	87,936.94	269,742.06	(181,805.12)	-67.40%	359,800.00
Water Demand Management - Other	2,500.00	14,107.93	10,439.55	3,668.38	35.14%	13,924.97
Water Demand Management - Incentive Programs	975.00	9,279.64	14,754.06	(5,474.42)	-37.10%	19,679.96
	18,513.17	122,182.69	325,298.52	(203,115.83)	-62.44%	433,904.93
Operations						
Purchased Water		1,701,335.79	2,137,684.86	(436,349.07)	-20.41%	2,851,387.03
Cooperative Transmission Pipeline Maintenance			3,748.50	(3,748.50)	-100.00%	5,000.00
Power to Wells	7,572.14	86,550.41	152,701.92	(66,151.51)	-43.32%	203,684.03
Wells - Repair / Maintenance	187.86	4,228.76	18,517.59	(14,288.83)	-77.16%	24,700.00
Water Quality Analysis	2,137.00	14,125.00	18,391.68	(4,266.68)	-23.20%	24,532.05
Field Miscellaneous - Dump Fees	169.45	3,118.60	2,998.80	119.80	3.99%	4,000.00
Small Tools - Field	523.28	29,819.99	29,988.00	(168.01)	-0.56%	40,000.00
Supplies - Field	2,952.86	17,083.93	18,742.50	(1,658.57)	-8.85%	25,000.00
Materials	27,551.17	120,374.55	14,994.00	105,380.55	702.82%	20,000.00
Materials - CIP Contra	(16,541.99)	(220,066.13)		(220,066.13)	0.00%	
Roadbase	1,173.87	26,912.75	18,742.50	8,170.25	43.59%	25,000.00
Maintenance Agreements - Equipment	322.00	4,246.38	7,646.94	(3,400.56)	-44.47%	10,200.00
Maintenance Agreements - Software	2,319.30	118,697.88	97,184.79	21,513.09	22.14%	129,631.57
Repair - Fleet Equipment	6,108.30	42,646.92	41,233.50	1,413.42	3.43%	55,000.00
Repair - Tools and Equipment		8,987.38	11,245.50	(2,258.12)	-20.08%	15,000.00
Gas and Oil	995.91	27,008.61	38,234.70	(11,226.09)	-29.36%	51,000.00
Equipment Rental - Field	118.76	1,147.12	7,497.00	(6,349.88)	-84.70%	10,000.00
Equipment Rental & Maint - Office & Building Equip	815.79	9,461.65	10,602.27	(1,140.62)	-10.76%	14,142.02

Citrus Heights Water District
Budget Performance Report
As of 9/30/2017

	September Actual	Year-to-Date Actual	Year-to-Date Budget	YTD Variance Amount	YTD Variance Percent	Annual Budget
Equipment CIP Contra Account	(32,914.99)	(308,271.20)		(308,271.20)	0.00%	
Permit Fee - Inspection Fees		469.11		469.11	0.00%	
Permit Fee - Air Quality / Haz Mat		7,337.00	4,648.14	2,688.86	57.85%	6,200.00
Permit Fee - State Water Resources Control Board		52,790.57	20,991.60	31,798.97	151.48%	28,000.00
Permit Fee - Encroachment Permits	2,289.60	10,015.65	32,986.80	(22,971.15)	-69.64%	44,000.00
	5,780.31	1,758,020.72	2,688,781.59	(930,760.87)	-34.62%	3,586,476.70
Professional & Contract Services						
Professional / Contract Services - Engineering		1,881.04	164,934.00	(163,052.96)	-98.86%	220,000.00
Professional / Contract Services - Temporary Labor	271.04	990.58	37,485.00	(36,494.42)	-97.36%	50,000.00
Professional / Contract Services - Wells		4,517.00	14,994.00	(10,477.00)	-69.87%	20,000.00
Professional / Contract Services - Office Labor	4,315.10	15,908.31	11,245.50	4,662.81	41.46%	15,000.00
Professional / Contract Services - Meter Reading	8,255.38	78,596.43	84,206.34	(5,609.91)	-6.66%	112,320.04
Professional / Contract Services - Bill Print / Mail	2,674.25	23,690.52	22,491.00	1,199.52	5.33%	30,000.00
Professional / Contract Services - Financial	630.00	30,534.20	33,736.50	(3,202.30)	-9.49%	45,000.00
Professional / Contract Services - Other	11,446.29	136,895.59	91,283.49	45,612.10	49.97%	121,760.02
Contract Services - Concrete			5,997.60	(5,997.60)	-100.00%	8,000.00
Contract Services - Misc Field / O&M	260.00	27,143.75	28,488.60	(1,344.85)	-4.72%	38,000.00
Contract Services - Office Repairs / Maint.	1,193.26	2,104.68	2,998.80	(894.12)	-29.82%	4,000.00
Contract Services - Paving		5,086.34	6,747.30	(1,660.96)	-24.62%	9,000.00
	29,045.32	327,348.44	504,608.13	(177,259.69)	-35.13%	673,080.06
Administrative & General Services						
Janitorial	989.00	9,773.93	12,373.83	(2,599.90)	-21.01%	16,505.04
Bank Fees	2,867.44	52,985.68	52,479.00	506.68	0.97%	70,000.00
Office Expense	892.93	9,425.27	12,744.90	(3,319.63)	-26.05%	17,000.00
Small Office Equipment		6,035.38	5,997.60	37.78	0.63%	8,000.00
Dues & Subscriptions	278.83	139,486.16	99,061.65	40,424.51	40.81%	132,135.05
Postage	11,456.19	100,424.93	89,214.30	11,210.63	12.57%	119,000.00
Printing		9,797.96	10,495.80	(697.84)	-6.65%	14,000.00
Telephone - Wireless	1,249.97	11,403.94	13,674.51	(2,270.57)	-16.60%	18,239.98
Telephone - Local / Long Distance	1,783.57	14,616.91	17,018.19	(2,401.28)	-14.11%	22,700.00
Telephone - Answering Service	284.72	1,638.96	1,874.25	(235.29)	-12.55%	2,500.00
Utilities	1,779.93	13,874.98	15,518.79	(1,643.81)	-10.59%	20,700.00
Legal & Audit	31,819.10	133,829.22	70,471.80	63,357.42	89.90%	94,000.00
Continued Education	8,009.13	44,724.89	53,543.61	(8,818.72)	-16.47%	71,420.04
Publication Notices		1,447.73	1,124.55	323.18	28.74%	1,500.00
Office Misc - District Events	148.62	1,624.43	4,265.82	(2,641.39)	-61.92%	5,690.03
Office Misc - Meeting Accomodations	349.66	5,587.01	5,247.90	339.11	6.46%	7,000.00
Office Misc - Other	340.00	2,162.68	1,649.34	513.34	31.12%	2,200.00
Office Misc - Milestone Events		2,137.03	4,123.35	(1,986.32)	-48.17%	5,500.00
Computer Software			2,773.89	(2,773.89)	-100.00%	3,700.00
	62,249.09	560,977.09	473,653.08	87,324.01	18.44%	631,790.14

Citrus Heights Water District
Budget Performance Report
As of 9/30/2017

	September Actual	Year-to-Date Actual	Year-to-Date Budget	YTD Variance Amount	YTD Variance Percent	Annual Budget
Administration Other						
Election Expense		250.00		250.00	0.00%	
Directors Meeting Compensation	1,595.00	12,220.00	15,001.47	(2,781.47)	-18.54%	20,009.97
Retiree Healthcare Benefit	3,475.42	30,801.78	36,960.48	(6,158.70)	-16.66%	49,300.36
	5,070.42	43,271.78	51,961.95	(8,690.17)	-16.72%	69,310.33
Salary and Benefits						
Salary - Office (6 authorized positions)	34,117.36	410,120.47	423,506.52	(13,386.05)	-3.16%	564,901.32
Salary - Water Demand Management (2 authorized positions)	15,025.19	131,588.91	140,262.21	(8,673.30)	-6.18%	187,091.12
Salary - Field / O&M (15 authorized positions)	97,145.89	897,618.01	966,347.28	(68,729.27)	-7.11%	1,288,978.63
Salary - Proj Mgmt & Engineering	26,449.74	236,788.40	306,432.27	(69,643.87)	-22.73%	408,739.85
Standby Duty	1,380.00	12,795.00	13,449.60	(654.60)	-4.87%	17,939.98
Employee Benefit - Vision Insurance	1,525.42	7,608.26	6,774.30	833.96	12.31%	9,036.01
Employee Benefit - Dental Insurance	6,446.82	32,565.61	27,888.84	4,676.77	16.77%	37,200.00
Employee Benefit - Health Insurance	32,838.71	316,921.42	292,173.12	24,748.30	8.47%	389,720.04
Employee Benefit - PERS Retirement	17,987.40	165,365.03	442,851.57	(277,486.54)	-62.66%	590,705.04
Employee Benefit - Social Security	13,007.84	121,125.63	135,099.72	(13,974.09)	-10.34%	180,205.04
Employee Benefit - Medicare	3,042.20	28,328.13	31,595.94	(3,267.81)	-10.34%	42,144.77
Employee Benefit - Unemployment Insurance	174.75	5,342.22	6,297.48	(955.26)	-15.17%	8,400.00
Employee Benefit - Health Insurance Reimbursement	592.22	18,246.86	22,491.00	(4,244.14)	-18.87%	30,000.00
Employee Benefit - COBRA Insurance		7,478.82		7,478.82	0.00%	
Employee Benefit - CA Emp Training	7.28	222.61		222.61	0.00%	
GASB 68 - Pension Expense	30,046.58	223,848.94		223,848.94	0.00%	
Employee Salary and Benefits - Allocation to CIP	(46,019.55)	(386,931.14)	(412,335.00)	25,403.86	-6.16%	(550,000.00)
	233,767.85	2,229,033.18	2,402,834.85	(173,801.67)	-7.23%	3,205,061.80
Insurance						
Insurance - Liability & Comprehensive		43,217.20	56,227.50	(13,010.30)	-23.14%	75,000.00
Insurance - Disability & Life	4,095.73	25,885.60	26,034.39	(148.79)	-0.57%	34,726.41
Insurance - Workers Compensation		16,059.35	40,722.66	(24,663.31)	-60.56%	54,318.61
	4,095.73	85,162.15	122,984.55	(37,822.40)	-30.75%	164,045.02
Debt-Related Expenses						
Bad Debt Expense		4,139.02	3,748.50	390.52	10.42%	5,000.00
Debt Service - COP Series 2010	41,200.00	61,711.84	425,379.78	(363,667.94)	-85.49%	567,400.00
Debt Service - COP Series 2012		52,644.74		52,644.74	0.00%	
CSM Deposit Interest Expense	2.94	766.64		766.64	0.00%	
	41,202.94	119,262.24	429,128.28	(309,866.04)	-72.21%	572,400.00
Total Operating Expenses	399,724.83	5,245,258.29	6,999,250.95	(1,753,992.66)	-25.06%	9,336,068.98
Net Income / (Expense)	647,999.17	5,860,144.25	2,807,884.88	3,052,259.37	108.70%	3,963,651.19

Capital Projects Summary

Project Number	Project Name	BUDGET				COMMITMENTS	AMOUNTS PAID			PROJECTION
		Project Forecast Budget	Expenditures to 12/2016	Remaining Budget	2017 Budget	Open Commitments	Month to Date	Year to Date	Project to Date	2018 Forecast
C15-102	Corporation Yard Improvements	$2,632,325	$83,095	$2,549,230	$2,590,558	$0	$357,814	$609,867	$692,962	
C15-130	Poplar Ave 14 Trans Main	$112,335	$25,807	$86,528	$86,528	$0	$0	$0	$25,807	
C15-133	Higland Ave and Rosa Vista	$396,487	$8,777	$387,710	$364,910	$0	$669	$21,635	$30,411	
C15-137	C-Bar-C Pressure Control	$550,000	$0	$550,000	$300,000	$0	$0	$0	$0	$250,000
C16-131	Wind Way and Longwood Way	$327,158	$0	$327,158	$22,004	$0	$6,236	$6,909	$6,909	$305,154
C16-134	Auburn Blvd-Rusch Park Placer	$166,357	$0	$166,357	$8,477	$0	$0	$0	$0	$157,880
C16-142	Sunrise Bl Streetscape Ph 2	$50,000	$0	$50,000	$50,000	$0	$0	$0	$0	
Construction in Progress		**$4,234,662**	**$117,679**	**$4,116,983**	**$3,422,477**	**$0**	**$364,719**	**$638,410**	**$756,089**	**$713,034**
C17-010	Water Main Replacements	$63,000	$0	$63,000	$63,000	$0	$0	$11,447	$11,447	
C17-011	Water Valve Replacements	$140,000	$0	$140,000	$140,000	$0	$0	$38,115	$38,115	
C17-012	Water Service Replacements	$550,000	$0	$550,000	$550,000	$0	$31,227	$534,477	$534,477	
C17-013	Water Meter Replacements	$100,000	$0	$100,000	$100,000	$0	$10,448	$84,027	$84,027	
C17-014	Fire Hydrants	$135,000	$0	$135,000	$135,000	$0	$3,216	$84,430	$84,430	
Annual Infrastructure		**$988,000**	**$0**	**$988,000**	**$988,000**	**$0**	**$44,891**	**$752,495**	**$752,495**	
C15-104	Technology HW & SW	$0	$30,590	($30,590)		$0	$0	$0	$30,590	
C15-104A	Billing/Finance Software	$0	$0	$0	$0	$0	$0	$0	$0	$0
C15-104B	Document Management System	$250,000	$0	$250,000	$120,000	$0	$0	$4,381	$4,381	$120,000
C17-003	Fleet/Field Operations Equip	$287,500	$0	$287,500	$287,500	$0	$0	$218,364	$218,364	
C17-003A	1/2 Ton Pickup Unit 14	$0	$0	$0		$0	$0	$0	$0	
C17-004	Technology Hardware/Software	$0	$0	$0	$0	$0	$0	$13,339	$13,339	
C17-004A	Server Upgrade	$100,000	$0	$100,000	$100,000	$0	$0	$0	$0	
C17-004B	Workstation Replacements	$20,000	$0	$20,000	$20,000	$0	$0	$0	$0	
C17-004C	Hydraulic Model	$42,000	$0	$42,000	$42,000	$0	$0	$38,607	$38,607	
Fleet and Equipment		**$699,500**	**$30,590**	**$668,910**	**$569,500**	**$0**	**$0**	**$274,690**	**$305,280**	**$120,000**

Capital Projects Summary

Project Number	Project Name	BUDGET				COMMITMENTS	AMOUNTS PAID			PROJECTION
		Project Forecast Budget	Expenditures to 12/2016	Remaining Budget	2017 Budget	Open Commitments	Month to Date	Year to Date	Project to Date	2018 Forecast
C15-101	Fairway 12" & 8" Intertie	$19,690	$0	$19,690	$19,690	$0	$487	$487	$487	
C15-109	Blossom Hill Way 6" & 10" Inte	$22,015	$0	$22,015	$22,015	$0	$0	$0	$0	
C15-110	Crestmont Ave 6" Intertie	$19,980	$0	$19,980	$19,980	$0	$0	$0	$0	
C15-131	Baird Way 12in Main	$510,337	$24,038	$486,299	$469,995	$0	$55,880	$231,755	$255,793	
C15-132	Graham Cir and CIrcuit Dr	$570,984	$0	$570,984	$46,936	$0	$1,875	$18,625	$18,625	$524,048
C17-100	24in Oak at C-Bar-C to Arcade	$2,100,000	$0	$2,100,000	$100,000	$0	$0	$0	$0	$500,000
C17-101	Pleasant View Dr-Oak to Poppy	$499,231	$0	$499,231	$39,101	$0	$0	$0	$0	$460,130
C17-102	Michigan Dr - Sunrise to West	$249,258	$0	$249,258	$18,255	$0	$0	$0	$0	$231,005
Water Mains		**$3,991,495**	**$24,038**	**$3,967,457**	**$735,972**	**$0**	**$58,242**	**$250,867**	**$274,905**	**$1,715,183**
C17-005	Facilities Improvements	$75,000	$0	$75,000	$75,000	$0	$0	$26,428	$26,428	
C17-040	Other City Partnerships	$50,000	$0	$50,000	$50,000	$0	$0	$0	$0	
C17-041	Other Infrastructure Projects	$50,000	$0	$50,000	$50,000	$0	$0	$0	$0	
C17-103	Operations Building Remodel	$1,475,000	$0	$1,475,000	$175,000	$0	$0	$19,010	$19,010	$1,300,000
Miscellaneous Projects		**$1,650,000**	**$0**	**$1,650,000**	**$350,000**	**$0**	**$0**	**$45,438**	**$45,438**	**$1,300,000**
C17-020	Groundwater Well Improvements	$115,000	$0	$115,000	$115,000	$0	$0	$1,306	$1,306	
C17-104	Groundwater Well Property Acq	$890,000	$3,550	$886,450	$740,000	$0	$0	$4,313	$7,863	
Wells		**$1,005,000**	**$3,550**	**$1,001,450**	**$855,000**	**$0**	**$0**	**$5,619**	**$9,169**	
	Grand Totals:	**$12,568,657**	**$175,856**	**$12,392,801**	**$6,920,949**	**$0**	**$467,852**	**$1,967,520**	**$2,143,376**	**$3,848,217**

SEPTEMBER 2017 WARRANTS

CHECK	PAYEE	DESCRIPTION	AMOUNT
64033	CirclePoint	Contract Services- Conservation	$9,251.25
64034	Miles Treaster & Associates	Office Expense	$16,954.00
64035	Pace Supply Corp	Material	$11,928.65
64036	RW Trucking	Contract Services- Miscellaneous	$10,837.50
64037	SMUD	Utilities	$9,232.02
64038	Ian/Sheila M Peterson	Customer Refund	$17.49
64039	Haile H & Merle L Jaekel Family Trust	Customer Refund	$10.83
64040	Michael P Ayers	Customer Refund	$63.43
64041	ABA DABA Rentals & Sales	Supplies-Field	$96.74
64042	AFLAC	Employee Paid Insurance	$238.56
64043	Alexander's Contract Services	Contract Services-Meter Reading	$2,022.79
64044	Betty Ann Bertoglio	Contract Services- Miscellaneous	$3,000.00
64045	BSK Associates	Water Analysis	$404.00
64046	Citrus Heights Saw & Mower	Repair-Equipment/Hardware	$28.26
64047	Robin Cope	Health Insurance	$412.00
64048	Dawson Oil Company	Gas & Oil	$3,518.91
64049	Ferguson Enterprises Inc #1423	Material	$417.00
64050	Integrity Administrators Inc	Health Insurance	$291.12
64051	J4 Systems	Contract Services-Other	$2,237.50
64052	San Gabriel Temp Staffing LLC dba LaborMax	Contract Services-Temporary Labor	$1,793.84
64053	Liebert Cassidy Whitmore	Legal & Audit	$3,205.00
64054	Moonlight BPO	Contract Services-Bill Print	$2,668.28
64055	One Print Source & Graphics	Printing	$46.33
64056	Pape Machinery Exchange	Fixed Assets	$3,784.72
64057	River City Staffing Group	Contract Services- Conservation	$1,120.61
64058	Staples Advantage	Office Expense	$64.59
64059	State Water Resources Control Board	Dues & Subscriptions	$90.00
64060	A. Teichert & Son, Inc.	Road Base	$7,534.01
64061	US Bank I.M.P.A.C. Government Services	Continued Education	$6,520.58
64062	Zee Medical Company	Supplies-Field	$110.51
64063	Dana Mattei	Customer Refund	$157.93
64064	Linda Elkins	Customer Refund	$183.18
64065	Buwalda Revocable Living Trust	Customer Refund	$7.29
64066	Salvadore T Jr/Constance J J Ricca	Customer Refund	$112.91
64067	Angelo G Tsakopoulos	Customer Refund	$339.92
64068	Victor/Natalia Strelchik	Customer Refund	$201.41
64069	Nathan Goore	Customer Refund	$168.84
64070	Jennie Wingerd	Customer Refund	$83.67
64071	RRB & LJB Investments INC	Customer Refund	$166.34
64072	Ellis M Matson	Customer Refund	$92.31
64073	Polycomp Trust Co CDN FBO T	Customer Refund	$16.55
64074	Andrew/Justina Kemp	Customer Refund	$15.26
64075	Kelly Harder	Customer Refund	$43.59
64076	Showalter Living Trust	Customer Refund	$32.51
64077	Nathan/Katrina Potter	Customer Refund	$11.43
64078	Ariane C Debien	Customer Refund	$55.48
64079	ABA DABA Rentals & Sales	Supplies-Field	$118.03
64080	Alexander's Contract Services	Contract Services-Meter Reading	$1,863.40
64081	AREA Restroom Solutions	Equipment Rental- Field	$118.76
64082	Area West Engineers Inc	Contract Services-Engineering	$6,236.25
64083	Betty Becker	Toilet Rebate Program	$150.00
64084	Ryan Bray	Toilet Rebate Program	$150.00
64085	Bryce Consulting, Inc	Legal & Audit	$800.00
64086	BSK Associates	Water Analysis	$1,078.00
64087	California Landscape Associates Inc	Janitorial	$200.00

SEPTEMBER 2017 WARRANTS

CHECK	PAYEE	DESCRIPTION	AMOUNT
64088	Cannon Water Technology Inc	Contract Services- Miscellaneous	$1,500.00
64089	City of Citrus Heights	Permit Fees	$2,289.60
64090	Corix Water Products, Inc	Material	$865.78
64091	County of Sacramento Municipal Services	Field Miscellaneous	$169.45
64092	Engineering News Record	Dues & Subscriptions	$82.00
64093	Express Office Products Inc	Office Expense	$99.78
64094	Future Ford	Repair-Trucks	$317.71
64095	Ferguson Enterprises Inc #1423	Material	$4,331.55
64096	Herc Rentals	Equipment Rental- Field	$147.00
64097	KBA DOCUSYS	Equipment Rental-Office	$20.06
64098	Kei Window Cleaning #12	Janitorial	$94.00
64099	San Gabriel Temp Staffing LLC dba LaborMax	Contract Services-Temporary Labor	$672.69
64100	Liebert Cassidy Whitmore	Legal & Audit	$6,650.00
64101	Moonlight BPO	Contract Services-Bill Print	$5,115.11
64102	Office Depot	Office Expense	$27.47
64103	Ernest Pearson	Toilet Rebate Program	$150.00
64104	Protection One Alarm Monitoring	Equipment Rental-Office	$140.00
64105	Republic Services #922	Utilities	$205.34
64106	River City Staffing Group	Contract Services- Conservation	$2,152.00
64107	SureWest Directories	Telephone- Local /Long Distance	$49.00
64108	State Water Resources Control Board	Dues & Subscriptions	$105.00
64109	A. Teichert & Son, Inc.	Road Base	$3,727.07
64110	United Textile	Supplies-Field	$113.61
64111	Valley Rubber & Gasket Co., Inc.	Supplies-Field	$272.19
64112	Warren Consulting Engineers Inc	Contract Services-Engineering	$1,875.00
64113	Pace Supply Corp	Material	$667.40
64114	Kenneth R/Corinne A Sheridan	Customer Refund	$21.93
64115	Patricia J Philipsen	Customer Refund	$12.37
64116	Daniel R Vargas	Customer Refund	$8.16
64117	Keller Family Trust	Customer Refund	$159.16
64118	Thomas A Fewer	Customer Refund	$949.94
64119	Dustin Rodine	Customer Refund	$11.04
64120	JoAnna Nunez	Customer Refund	$10.55
64121	Martin General Engineering Inc	Customer Refund	$1,584.09
64122	Maurice H Habra	Customer Refund	$48.43
64123	Michael Moore	Customer Refund	$8.41
64124	Jose Mariona	Customer Refund	$128.06
64125	Lavalle Robinson SR	Customer Refund	$302.74
64126	Justin D Dunbar-Zian	Customer Refund	$66.27
64127	Airgas USA, LLC	Supplies-Field	$288.07
64128	Alexander's Contract Services	Contract Services-Meter Reading	$7,457.34
64129	AM Conservation Group Inc	Water Conservation-Materials/Supplies	$2,251.43
64130	AnswerNet	Telephone-Answering Service	$284.72
64131	Awards By Kay Inc	Office Expense	$21.65
64132	Axcient Inc	Maintenance Agreement-Software	$444.30
64133	Bart/Riebes Auto Parts	Repair-Trucks	$73.26
64134	Best Best & Krieger	Legal & Audit	$1,757.09
64135	Certex Usa Inc	Supplies-Field	$186.61
64136	CirclePoint	Contract Services- Conservation	$7,052.08
64137	Consolidated	Telephone- Local /Long Distance	$1,734.57
64138	Corelogic Information Solutions Inc	Dues & Subscriptions	$196.83
64139	Corix Water Products, Inc	Material	$407.30
64140	Dawson Oil Company	Gas & Oil	$995.91
64141	Ecolandscape California	Water Conservation-Other	$2,500.00
64142	Grainger	Small Tools	$103.44

SEPTEMBER 2017 WARRANTS

CHECK	PAYEE	DESCRIPTION	AMOUNT
64143	Ferguson Enterprises Inc #1423	Material	$7,082.40
64144	Indoor Environmental Services	Maintenance Agreement-Equipment	$322.00
64145	J4 Systems	Contract Services-Other	$1,960.00
64146	Kaiser Foundation Health Plan, Inc	Health Insurance	$18,254.37
64147	San Gabriel Temp Staffing LLC dba LaborMax	Contract Services-Temporary Labor	$1,121.19
64148	Liebert Cassidy Whitmore	Legal & Audit	$6,985.45
64149	Moonlight BPO	Contract Services-Bill Print	$1,339.93
64150	Pace Supply Corp	Material	$100.31
64151	Pacific Gas & Electric	Utilities	$9.33
64152	Red Wing Shoe Store	Small Tools	$595.00
64153	Regional Government Services	Contract Services-Other	$1,298.75
64154	River City Staffing Group	Contract Services- Conservation	$2,114.00
64155	Rotary Club of Citrus Heights	Continued Education	$840.00
64156	Steven Enterprises Inc	Office Expense	$215.22
64157	State Water Resources Control Board	Dues & Subscriptions	$80.00
64158	The Lincoln National Life Insurance Company	Disability & Life Insurance	$6,121.68
64159	Titan Workforce LLC	Contract Services-Temporary Labor	$945.00
64160	RDO Equiment CO	Fixed Assets	$2,400.43
64161	WaterWise Consulting, Inc	Contract Services- Conservation	$525.00
64162	Wells Fargo Bank	Office Expense	$2,500.00
64163	State Water Resources Control Board	Dues & Subscriptions	$80.00
64164	Ashley G Smith Trust	Customer Refund	$16.77
64165	James P McAlister	Customer Refund	$699.61
64166	Todd/Sandra Stenhouse	Customer Refund	$122.73
64167	Jerry/Karen Baugh	Customer Refund	$58.63
64168	Avalon Custodial Care	Janitorial	$695.00
64169	CA-NV AWWA	Dues & Subscriptions	$80.00
64170	Bart/Riebes Auto Parts	Repair-Trucks	$156.78
64171	Bartel Associates LLC	Contract Services-Financial	$630.00
64172	BSK Associates	Water Analysis	$1,059.00
64173	FP Mailing Solutions	Equipment Rental-Office	$173.10
64174	Gaynor Telesystems Incorporated	Contract Services-Other	$158.00
64175	David Gordon	Continued Education	$1,950.00
64176	Ferguson Enterprises Inc #1423	Material	$7,627.64
64177	Herc Rentals	Equipment Rental- Field	$2,142.73
64178	KBA DOCUSYS	Equipment Rental-Office	$63.46
64179	San Gabriel Temp Staffing LLC dba LaborMax	Contract Services-Temporary Labor	$896.92
64180	Moonlight BPO	Contract Services-Bill Print	$2,839.31
64181	Pace Supply Corp	Material	$522.91
64182	Sierra Office and Printing	Water Conservation-Materials/Supplies	$2,092.51
64183	Sophos Solutions	Contract Services-Other	$3,360.00
64184	Titan Workforce LLC	Contract Services-Temporary Labor	$1,260.00
64185	ULINE	Supplies-Field	$730.52
64186	Verizon Wireless	Telephone-Wireless	$1,249.97

SEPTEMBER 2017 WARRANTS

CHECK	PAYEE	DESCRIPTION	AMOUNT
Total			$254,683.79
ACH	AUG 2017 FD	Bank Fee	$181.99
ACH	AUG 2017 PH	Bank Fee	$57.99
ACH	AUG 2017 SERVICE FEE	Contract Services-Other	$378.00
ACH	AUG 2017 WEB	Bank Fee	$42.29
ACH	AUGUST 2017 FEE	Bank fee	$1,751.85
ACH	PERS 9/21/17 PAYDAY	PERS	$16,345.68
ACH	PERS 9/7/17 PAYDAY	PERS	$16,345.68
ACH	SEPTEMBER 2017	COP Debt Service	$525,871.80
ACH	VALIC 9/7/17 PAYDAY	Deferred Compensation	$3,692.50
ACH	VALIC 9/21/17 PAYDAY	Deferred Compensation	$3,692.50
ACH	VANCO AUG 2017	Contract Services-Other	$30.28
ACH	VOYA 9/7/17	Deferred Compensation	$25.00
ACH	OCTOBER 2017 HEALTH	Health Insurance	$13,684.34
ACH	SEPT 2017 GASB	PERS	$30,046.58
ACH	VOYA 9/21/17 PAYDAY	Deferred Compensation	$25.00
Total			$612,171.48
Grand Total			$866,855.27

October Checks Approved at October Board Meeting

64189	Best Best & Krieger	Legal & Audit	$13,221.56
64190	Domenichelli and Associates, Inc	Contract Services-Engineering	$31,187.07
64191	PNP Construction, Inc	Contract Services-Engineering	$321,172.00
64192	SMUD	Utilities	$8,835.67
64193	US Bank I.M.P.A.C. Government Services	See October Agenda Item CC-9	$8,927.40
Total			$383,343.70

US BANK - CAL-Card Distributions

September 2017

	TOTAL BILL	52300-02 Wells Main	54200-03 Offic Misc	54210 Tools	54211 Supplies	54220 Material	54231-02 Main Agree Software	54241-01 Repair	54241-01 Truck	56200 Office Exp	56230 Postage	56830 C.E.	56890-01 Office Misc, District Event	56890-02 Mtg Accom	56890-03 Office Misc, Other
Cutler	$ 36.23				36.23										
Gordon	$ 107.99								72.99			35.00			
Hensley	$ 284.68		37.93									246.75			
Shockley	$ 7,342.50	187.86		249.54	1,159.02					449.24	146.30	4,360.92	116.71	349.66	323.25
Spiers	$ 192.63		10.12			15.00			167.51						
Sohal	$ 963.37						250.00					651.46	61.91		
	$ 8,927.40	**187.86**	**48.05**	**249.54**	**1,195.25**	**15.00**	**250.00**		**240.50**	**449.24**	**146.30**	**5,294.13**	**178.62**	**349.66**	**323.25**

2017

V#:

Date: 9/30/17

October 18, 2017 - AGENDA ITEM: CC-9

Citrus Heights Water District

2017 Staff Training Courses/Seminars/Conferences

as of 10/4/2017

Date	Days	Topic	Organizing Agency	Location	Attendee	Total Expenses	Registration	Hotel	Air/Travel	Car rental	Meals	Parking/Taxi/ phone
7/9/17-7/14/17	6	Esri User Conference 2017	ESRI	San Diego, CA	Borey Swing	1,814.54	0.00	1487.64	326.90			
1/23-1/24/17	2	Cappo Confernece	Cappo	Napa	Robyn Evans	310.00	310.00					
1/23-1/24/17	2	Cappo Confernece	Cappo	Napa	Beth Shockley	310.00	310.00					
2/12-2/15/17	4	Parma Conference	Parma	Anaheim	Susan Sohal	1,308.40	320.00	567.00	421.40			
2/12-2/15/17	4	Parma Conference	Parma	Anaheim	Kelly Drake	1,467.69	320.00	663.39	421.40		62.90	
05/09-05/12/17	4	ACWA Spring Conference	ACWA	Monterey, CA	Hilary Straus	1,612.64	699.00	913.64				
05/09-05/12/17	4	ACWA Spring Conference	ACWA	Monterey, CA	Susan Sohal	1,612.64	699.00	913.64				
05/09-05/12/17	4	ACWA Spring Conference	ACWA	Monterey, CA	Missy Pieri	1,612.64	699.00	913.64				
04/10-04/13/17	4	CA NV Section AWWA Conference	AWWA	Anaheim	Rex Meurer	1,918.60	495.00	1071.72	351.88			
04/23-4/26/17	4	Neptune 2017 User Conference	Neptune	Tempe, AZ	Kelly Drake	1,107.91	250.00	544.12	227.89	85.90		
04/23-4/26/18	5	Neptune 2017 User Conference	Neptune	Tempe, AZ	Dana Mellado	1,034.73	250.00	544.12	185.89			54.72
2/8-2/11/17	3	CSMFO Conference	CSMFO	Sacramento	Alberto Preciado	113.06				51.06		62.00
05/16/17	1	Cappo Seminar	Cappo	Sacramento	Beth Shockley	99.00	99.00					
05/16/17	1	Cappo Seminar	Cappo	Sacramento	Alberto Preciado	99.00	99.00					
6/25-6/27/17	4	General Manager Leadership Summit	CSDA	Newport Beach	Hilary Straus	1,735.31	625.00	693.03	257.95	159.33		
6/25-6/27/17	4	General Manager Leadership Summit	CSDA	Newport Beach	Susan Sohal	1,575.98	625.00	693.03	257.95			
7/9-7/14/17	6	Esri User Conference 2017	ESRI	San Diego, CA	Tamar Dawson	2,335.00	0.00	1989.05	345.95			
10/3-10/6/17	4	Watersmart Innovations	Watersmart	Las Vegas, NV	Hilary Straus	1,175.04	430.00	418.08	326.96			
10/3-10/6/17	4	Watersmart Innovations	Watersmart	Las Vegas, NV	Rex Meurer	1,134.03	430.00	418.08	285.95			
	1	Summer Signature Symposium	MMANC	Palo Alto, CA	Chris Castriuta	100.00	100.00					
10/21-10/24/17	4	Board Secretary Conference	CSDA	Anaheim, CA	Chris Castriuta	1,289.69	800.00	489.69				
11/28-12/1/17	6	ACWA Fall Conference	ACWA	Anaheim, CA	David Gordon	1,694.88	699.00	916.92	78.96			
11/28-12/1/17	6	ACWA Fall Conference	ACWA	Anaheim, CA	Hilary Straus	1,808.88	699.00	916.92	192.96			
11/28-12/1/17	6	ACWA Fall Conference	ACWA	Anaheim, CA	Brian Hensley	1,838.88	699.00	916.92	222.96			
10/17/17	1	ACWA 2017 Regulatory Summit	ACWA	Sacramento, CA	Alberto Preciado	270.00	270.00					
10/17/17	1	ACWA 2017 Regulatory Summit	ACWA	Sacramento, CA	Rex Meurer	270.00	270.00					
10/17/17	1	ACWA 2017 Regulatory Summit	ACWA	Sacramento, CA	David Gordon	270.00	270.00					
11/15-11/17/17	3	2017 HarrisCustomer Training Conference	Harris	Atlantic City, NJ	Susan Sohal	2,139.76	875.00	640.02	470.40	154.34		
1/8/18-1/12/17	5	Cappo Confernece	Cappo	Palm Springs CA	Beth Shockley	1,266.32	295.00	748.36	222.96			
10/25-10/27/17	3	Municipal Management Assoc of Souther California	MMASC	San Diego, CA	Chris Castriuta	1,524.45	520.00	833.47	170.98			
10/25-10/27/18	3	Municipal Management Assoc of Souther California	MMASC	San Diego, CA	Susan Sohal	1,313.37	520.00	550.40	242.97			
					Grand Total	**36,162.44**						

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
October 18, 2017 REGULAR MEETING

SUBJECT : Employee Recognition
STATUS : Information Item
REPORT DATE : October 11, 2017
PREPARED BY : Christopher Castruita, Management Services Supervisor/Chief Board Clerk

The following District employees were recognized for perfect attendance during August 2017, and outstanding customer service and quality of work during the month of September 2017.

Administration & Water Efficiency Department

Name	Attendance	Customer Service	Work Quality
Chris Castruita	Yes		For outstanding work for high quality, well written Board Minutes. Leading the Prop 218 Newsletter preparation.
Brady Chambers	Yes	Assisting with the annual Citrus Heights Sunday Funday.	
Kelly Drake	Yes		Assisted with Board Meeting preparation and presenting an item at the Meeting.
Dana Mellado		Assisting a customer with a private leak to submit the appropriate documents for possible adjustment to bill. Customer was very appreciative of her help.	
Rex Meurer	Yes		
Alberto Preciado	Yes	Received a note from a customer for helping her with her bill. Customer was very appreciative.	Assisted with the Prop 218 Newsletter preparations.

Name	Attendance	Customer Service	Work Quality
Beth Shockley	Yes		
Desiree Smith	Yes		Assisted with the Prop 218 Newsletter preparations

Engineering Department

Name	Attendance	Customer Service	Work Quality
Tamar Dawson	Yes		
Paul Dietrich	Yes		
Neil Tamagni	Yes		For coming in during off hours to inspect Capital Improvement Project.

Operations Department

Name	Attendance	Customer Service	Work Quality
James Buford	Yes	Assisting with the annual Citrus Heights Sunday Funday.	
Tim Cutler	Yes		For coming in during off hours to assist with a Capital Improvement Project
James Ferro			Assisted Standby with a Water Service Leak on Crux Drive the evening of 09/26/17.

Name	Attendance	Customer Service	Work Quality
Gil Garcia		Received a note for assisting on locating a leak at a customer's pool filler. They were able to tighten the pool filler and stop the leak. Customer was very appreciative.	
Brian Hensley	Yes		
Ricky Kelley	Yes		Assisted with Bac-T sampling for the Baird Way Water Main Project the evening of 09/08/17. Assisted with Bac-T sampling for the Baird Way Water Main Project the evening of 09/08/17.
Mike Mariedth		Received a note for assistance on locating a leak at a customer's pool filler. They were able to tighten the pool filler and stop the leak. Customer was very appreciative.	
Chris Nichols	Yes		Performed Bac-T sampling for the Baird Way Water Main Project the evening of 09/09/17. Assisted Standby with a Water Service Leak on Crux Dr. the evening of 09/26/17.
Ryon Ridner		Assisting with the annual Citrus Heights Sunday Funday.	
John Spinella	Yes		
Jason Tupper			Performed Bac-T sampling for the Baird Way Water Main Project the evening of 09/08/17.

CITRUS HEIGHTS WATER DISTRICT
DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
October 18, 2017 REGULAR BOARD MEETING

SUBJECT : LONG RANGE AGENDA
STATUS : Consent/Information Item
REPORT DATE : October 5, 2017
PREPARED BY : Christopher Castruita, Management Services Supervisor/Chief Board Clerk

OBJECTIVE:

Listed below is the current Long Range Agenda.

Legend	
SS	Study Session
CC	Consent Calendar
P	Presentation
B	Business
CL	Closed Session

CITRUS HEIGHTS WATER DISTRICT LONG RANGE AGENDA					
MEETING DATE	**MEETING TYPE**	**ITEM DESCRIPTION**	**ASSIGNED**	**AGENDA TYPE**	**AGENDA ITEM**
UPCOMING					
November 8, 2017					
November 8, 2017	**Special Board Meeting**	Public Hearing -- Rate, Misc. Charges and Fees, CIP, O&M	**Straus/Sohal**	**PH**	A
November 15, 2017					
November 15, 2017		Update on Groundwater Sustainability Plan Development	**Gordon/Hensley/Andersen**	**P**	I/D
November 15, 2017		State Legislative Update	**Gordon/Meurer/Adam Robin**	**P**	I/D
November 15, 2017		Strategic Plan Quarterly Update	**Castruita**	**B**	I/D
November 15, 2017		Cost-of-Living Adjustment to Salary Schedule, Retiree Insurance Benefits, and Directors' Compensation	**Castruita**	**B**	A
December 20, 2017					
December 20, 2017		Award of Contract-Highland Ave & Rosa Vista Ln 8" Water Mains	**Pieri/Dietrich/Dawson**	**CC**	A
December 20, 2017		Review of Policy 6500: Purchasing and Procurement	**Nelson/Sohal/Preciado**	**P**	I/D
December 20, 2017		Review Customer Advisory Committee Applicants	**Pieri/Meurer**	**B**	I/D
December 20, 2017		Committee Assignments	**Castruita**	**B**	A
December 20, 2017		District Officers	**Castruita**	**B**	A
December 20, 2017		Selection of President and Vice President	**Castruita**	**B**	A
January 17, 2018					
January 17, 2018		Flagger Policy	**Drake/Castruita**	**CC**	A
January 17, 2018		Bloodborne Pathogen Policy	**Drake/Castruita**	**CC**	A
January 17, 2018		Proposed Revisions to Policy 6500: Purchasing and Procurement	**Nelson/Sohal/Preciado**	**B**	A
January 17, 2018		Appoint Customer Advisory Committee	**Pieri/Meurer**	**B**	A
January 17, 2018		457-B Deferred Compensation	**Castruita**	**B**	A

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT : ENGINEERING AND CAPITAL PROJECTS DEPARTMENTAL REPORT
STATUS : Consent/Information Item
REPORT DATE : October 18, 2017
PREPARED BY : Missy Pieri, Engineering Manager/District Engineer

Significant assignments and activities for the Project Management and Engineering Department are summarized below. I will be available at the meeting to answer questions and/or provide additional details.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PROJECT 2030 Water Main Replacement Project	Engineering	Missy Pieri	On-going	Yes, 10/18/17 (Anticipated Award of Contract)	Yes	2017-2018 Masterplan for replacement of mains installed in 1960-1985.	Award of contract anticipated for 10/18/17 Board Meeting.
CAPITAL IMPROVEMENT PROJECT Corporation Yard Safety Improvements Project	Engineering	Paul Dietrich	On-going	TBD	Yes	2017 design and construction of Vacuum Spoils Disposal, Wash Station, Materials Storage, and Safety and Efficiency Upgrades.	Board Award of Contract 07/24/17. Notice to Proceed started 08/10/17. 25% Complete.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
CAPITAL IMPROVEMENT PROJECT Corporation Yard / Facilities Master Plan Buildout	Engineering	Paul Dietrich	On-going	TBD	Yes	2017-18 Masterplan for facilities requirements through 2040.	Project is currently on hold due to other priorities. Current plan is to start work again in first half of 2018.
CAPITAL IMPROVEMENT PROJECT Highland Ave & Rosa Vista Ln 8" Water Mains	Engineering	Missy Pieri/ Tamar Dawson	On-going	Yes, 10/18/17, PS&E for approval to bid	Yes	2017 design and construction. Potholing complete.	Request approval from the Board to go out to bid at the 10/18/17 Board Meeting.
CAPITAL IMPROVEMENT PROJECT Graham Cir and Circuit Dr 8" Water Mains	Engineering	Tamar Dawson/ Paul Dietrich	On-going	Yes, TBD	Yes	2017 design, 2018 construction.	Operations began potholing existing utilities on 10/10/17.
CAPITAL IMPROVEMENT PROJECT Wind Way and Longwood Way 8" Water Mains	Engineering	Tamar Dawson/ Paul Dietrich	On-going	Yes, TBD	Yes	2017 design, 2018 construction.	Staff to schedule potholing.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
CAPITAL IMPROVEMENT PROJECT Pleasant View Drive 8" Water Main	Engineering	Tamar Dawson/ Borey Swing	On-going	Yes, TBD	Yes	2017 design, 2018 construction.	Approval of Design Services Contract at the 10/18/17 Board Meeting.
CAPITAL IMPROVEMENT PROJECT Michigan Drive 8" & 6" Water Mains	Engineering	Tamar Dawson/ Borey Swing	On-going	Yes, TBD	Yes	2017 design, 2018 construction.	Approval of Design Services Contract at the 10/18/17 Board Meeting.
CAPITAL IMPROVEMENT PROJECT Mesa Verde High School 14-inch T-Main	Engineering	Tamar Dawson/ Paul Dietrich	On-going	Yes, TBD	Yes	Water transmission main installation	Operations performing work. Beginning construction on 10/03/17; Estimated to be completed by end of 11/2017.
PRIVATE DEVELOPMENT Northridge Grove - 5555 Mariposa Ave 47 Condominiums	Engineering	Neil Tamagni	On-going	Yes, TBD	No	47 lot subdivision by developer	Valve box installations will be completed during pavement placement. Punchlist sent to Contractor on 08/08/17.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PRIVATE DEVELOPMENT Commercial Building Remodel - 5414-50 Sunrise Blvd	Engineering	Neil Tamagni	On-going	Yes, TBD	No	Commercial Redevelopment	North tie-in completed the night of 10/09/17. Easements pending.
PRIVATE DEVELOPMENT Louis-Orlando Bus Transfer Point - Louis Ln at Orlando Ave	Engineering	Neil Tamagni	On-going	Yes, TBD	No	City of Roseville Bus Transfer Station	Water construction began 05/24/17.
PRIVATE DEVELOPMENT Meier Estates - North Sims Way 7 Lot Subdivision	Engineering	Missy Pieri/Neil Tamagni	On-going	Yes, TBD	No	7 Lot Subdivision by developer	Water mains installed and hydrostatic pressure test complete. Bacteriological testing and installation of water meter setters pending.
PRIVATE DEVELOPMENT Dignity Health Building - 7115 Greenback Ln	Engineering	Missy Pieri/Neil Tamagni	On-going	Yes, TBD	No	Medical Office Building by developer	Field Meeting on 09/21/17. Submittals in review.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PRIVATE DEVELOPMENT 3 Lot Residential Subdivision - 5648-5696 San Juan Ave	Engineering	Missy Pieri	On-going	No	No	3 Lot Subdivision by developer	No update.
PRIVATE DEVELOPMENT Mitchell Farms - 7925 Arcadia Drive	Engineering	Missy Pieri/Tamar Dawson	On-going	Yes, TBD	No	200-300 unit development by developer	Project under Environmental Review.
PRIVATE DEVELOPMENT Mariposa Creek Subdivision - Antelope Road	Engineering	Tamar Dawson/ Missy Pieri	On-going	No	No	15 lot subdivision located on Antelope Road by developer	Received plans on 09/12/17. Comments sent to developer on 10/09/17.
PRIVATE DEVELOPMENT Citrus Place Subdivision	Engineering	Tamar Dawson/ Missy Pieri	On-going	No	No	7 lot subdivision located near Wachtel Way & Talbot Way	09/13/17 - Sent Will Serve letter
PRIVATE DEVELOPMENT 7312 Veteran Ln - New SFD	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	New home proposed on lot	Customer needs flow test for fire sprinklers.
PRIVATE DEVELOPMENT 7581 Sycamore Dr - Parcel Split 1 - 3	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	Parcel being split into 3 lots for a 3 home subdivision	Reviewed plans and provided comments 09/28/17.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
PRIVATE DEVELOPMENT 8027 Holly Dr - Parcel Split 1 - 3	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	Parcel being split into 3 lots for a 3 home subdivision	Tentative Parcel Map received 08/21/17. Will Serve letter sent 08/29/17.
PRIVATE DEVELOPMENT Sunrise Blvd_5437-5439 - Sunrise Village Retail Center - parcel split	Engineering	Missy Pieri/Tamar Dawson	On-going	TBD	No	Parcel being split into 3 lots for individual sales that previously occurred	Sent comments to City 09/13/17.
PRIVATE DEVELOPMENT 7601 Sunrise Blvd The Human Bean	Engineering	Missy Pieri/Tamar Dawson	On-going	No	No	Commercial Development	Comments sent to developer on 10/04/17.
CITY OF CITRUS HEIGHTS PROJECT City Drainage Project	Engineering	Tamar Dawson/ Borey Swing	On-going	Yes, TBD	Yes	Highland Ave, Wonder St, Dana Butte Way, and Sunhill Dr Storm Drain Project	Anticipate bid and start of construction in Spring 2018. "B" Plans sent back 08/21/17 with comments. Coordinating utility conflicts.

Items of Interest	Department	Point of Contact	Date	To Board? If so, Date	Strategic Planning Item	Item Description	Update from Last Report
CITY OF CITRUS HEIGHTS PROJECT Sunrise Blvd Complete Streets Phase 2A (C16-142)	Engineering	Missy Pieri/Tamar Dawson	On-going	Yes, TBD	Yes	Frontage & Storm Drain Improvements along West Side of Sunrise from Sayonara to north	Anticipate bid and start of construction in Spring 2018. Coordinating utility conflicts.
CITY OF CITRUS HEIGHTS PROJECT Mariposa Ave - Safe Routes to School Phase III	Engineering	Missy Pieri/Tamar Dawson	On-going	Yes, TBD	Yes	Frontage Improvements along West side of Mariposa Ave from Northridge to Eastgate	Received signed Utility Agreement. Anticipate bid and start of construction in Spring 2018.
CITY OF ROSEVILLE PROJECT Fair Way Intertie (C15-101)	Engineering	Missy Pieri/Neil Tamagni/ Operations Manager	On-going	Yes, TBD	Yes	Intertie with City of Roseville on Fair Way.	City of Roseville to start construction on 10/17/17.
Annexations	Engineering	-	2018	Yes, TBD	Yes	Strategic Planning Item	New item
Easements	Engineering	-	2018	Yes, TBD	Yes	Strategic Planning Item	New item

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR BOARD MEETING

SUBJECT : OPERATIONS DEPARTMENT REPORT
STATUS : Consent/Information Item
REPORT DATE : October 5, 2017
PREPARED BY : David M. Gordon, Operations Manager
Tim Cutler, Water Distribution Supervisor

Facilities Maintenance

	Completed WO's	
	Current Mth	**Year to Date**
Backflow Maintenance		10
Blow Off Maintenance	48	126
Hydrant Maintenance		240
Leak Investigation		5
Mainline Repair/Maintenance	1	5
Meter Box Maintenance	1	21
Meter Register Replacement	11	125
Meter Repair/ Test/Maintenance		7
Pot Hole Work		
Water Service Repair/Locate		6
Valve, Mainline Maintenance	4	425
Valve Box Maintenance		9
TOTAL	**65**	**979**

CIP Projects

	Completed WO's	
	Current Mth	**Year to Date**
C17-010 Water Mainline		
C17-011 Water Valves		7
C17-012 Water Services	7	175
C17-013 Water Meters	22	111
C17-014 Fire Hydrants	1	7
TOTAL	**30**	**300**

Water Quality

Water Analysis Report: Bacteriological testing has met all California Department of Public Health requirements. ***72*** *samples were collected with no positive results.*

CITRUS HEIGHTS WATER DISTRICT
DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR BOARD MEETING

SUBJECT : 2017 WATER SUPPLY - PURCHASED & PRODUCED
STATUS : Consent/Information Item
REPORT DATE : October 4, 2017
PREPARED BY : Brian M. Hensley, Water Resources Supervisor
David M. Gordon, Operations Manager

OBJECTIVE:
Report on annual water supply including comparison with prior years and current 5 - 10% voluntary reduction policy.

Month	2013	2014	2015	2016	2017				Year-to-Date Comparison to 2013	
	Total Water Monthly				Surface Water Purchased	Ground Water Produced	Total Water Monthly	Total Water Annual		
	acre feet				acre feet				acre feet	%
Jan	602.52	602.39	570.05	539.60	433.94	72.87	506.81	506.81	-95.71	-15.9%
Feb	606.36	450.96	511.52	484.53	376.41	67.58	443.99	950.80	-258.08	-21.3%
Mar	819.55	612.20	725.95	517.56	462.69	83.91	546.60	1,497.40	-531.03	-26.2%
Apr	1,029.73	737.30	761.02	677.81	513.05	62.47	575.52	2,072.92	-985.24	-32.2%
May	1,603.43	1,190.07	869.08	979.49	1,053.42	85.30	1,138.72	3,211.64	-1,449.95	-31.1%
Jun	1,816.73	1,548.66	1,065.10	1,343.76	1,351.18	61.76	1,412.94	4,624.58	-1,853.74	-28.6%
Jul	2,059.21	1,622.10	1,184.95	1,544.57	1,618.69	32.07	1,650.76	6,275.34	-2,262.19	-26.5%
Aug	1,924.28	1,477.49	1,188.18	1,579.80	1,526.95	43.85	1,570.80	7,846.14	-2,615.67	-25.0%
Sep	1,509.82	1,275.11	1,069.78	1,257.91	1,394.70	47.06	1,441.76	9,287.90	-2,683.73	-22.4%
Oct	1,297.42	1,030.74	918.67	840.80						
Nov	911.55	682.48	589.6	561.82						
Dec	700.94	563.15	519.57	518.62						
Total	14,881.54	11,792.65	9,973.47	10,846.27	8,731.03 94.00%	556.87 6.00%	9,287.90	9,287.90		

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	:	WATER SUPPLY RELIABILITY
STATUS	:	Consent/Information Item
REPORT DATE	:	October 5, 2017
PREPARED BY	:	David M. Gordon, Operations Manager Brian Hensley, Water Resources Supervisor

OBJECTIVE:
Receive status report on surface water supplies available to the Citrus Heights Water District (District).

BACKGROUND AND ANALYSIS:
As of October 1, 2017, storage in Folsom Lake (Lake) was at 659,200 acre-feet, 67 percent of the total capacity of 977,000 acre-feet. This represents a decrease in storage of 114,507 acre-feet in the past month.

The District's total water use during the month of September 2017 (1,441.76 acre-feet) was 4.5 percent below that of September 2013 (1,509.82 acre-feet).

The District continues to assist with preserving surface water supplies in the Lake by operating its groundwater wells. The District's groundwater production wells, Bonita, Mitchell Farms, Skycrest, and Sylvan, are operational and used on a rotational or as-needed basis.

AGENDA ITEM: CC-17

CITRUS HEIGHTS WATER DISTRICT

WATER EFFICIENY SUPERVISOR REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT : WATER EFFICIENCY PROGRAM UPDATE
STATUS : Consent/Information Item
REPORT DATE : October 9, 2017
PREPARED BY : Rex W. Meurer, Water Efficiency Supervisor

Water Efficiency program updates are summarized below.

ACTIVITIES AND PROGRESS REPORT

Water Efficiency Program activities during the month of September 2017 include:

- 13 ultra-low-flush toilet (ULFT) rebates were processed for the month of September. A total of 124 ULFT rebates have been processed for a total of $9,280.00 year to date.

- For the period of January-September, 11 High Efficiency Clothes Washer (HECW) rebates were processed. Year-to-date, 11 HECW rebates were processed by the Sacramento Municipal Utility District (SMUD) for District customers.

- 29 water waste calls were received during the month of September. 3 reports of water waste were received through CHWD's Drought Resources web page. An additional 6 service requests were generated by staff. A total of 32 contacts have been completed based on these reports.

- Staff completed and submitted the District's Wave 4 Water Loss documentation required by SB 555. The Department of Water Resources (DWR) is proceeding to finalize and validate all Wave 4 documents submitted. Approval is pending DWR's review.

- Staff attended a booth at the City of Citrus Heights twenty-first annual Sunday Funday event held on September 24th. A conservation trivia wheel was used to promote water efficiency and water education.

- An Ecolandscape class is tentatively scheduled for Wednesday November 1st from 6:00 pm-8:00 pm. The class will be held at the Citrus Heights Community Center. The class topics will cover winter maintenance of your landscape and irrigation system, tree pruning and other fall gardening techniques.

- The following table summarizes the Residential Gallons Per Capita Per Day (R-GPCD) values for CHWD to date:

Month	R-GPCD 2016	R-GPCD 2017	% CHANGE
January	80	75	-06%
February	77	72	-06%
March	77	80	04%
April	107	87	-19%
May	155	166	07%
June	213	213	0%
July	237	241	02%
August	242	229	-05%
September	189	217	15%

Month	R-GPCD 2016	R-GPCD 2017	% CHANGE
October	123		
November	85		
December	76		

Below is a recap of the region's overall water saving in August 2017 as compared to 2013.

REDUCTION BY AGENCY (Data compared to 2013)		
Water Agency	August 2017 Reduction	January - August 2017 Reduction
California American Water	18.8%	26.4%
City of Sacramento	18.5%	24.5%
Citrus Heights Water District	18.2%	25.0%
Golden State Water Company	16.1%	21.1%
City of West Sacramento	15.0%	23.8%
Rio Linda/Elverta CWD	14.8%	21.7%
City of Davis	13.6%	22.9%
City of Yuba City	13.3%	20.3%
Orange Vale Water Company	12.4%	28.3%
Elk Grove Water District	12.1%	22.6%
Fair Oaks Water District	12.1%	23.7%
Sacramento Suburban WD	11.8%	20.5%
Carmichael Water District	11.7%	22.3%
San Juan Water District	11.4%	27.2%
City of Roseville	7.1%	19.4%
City of Woodland	6.9%	27.3%
El Dorado Irrigation District	6.9%	20.6%
City of Lincoln	5.0%	17.2%
Sacramento County Water Agency	4.8%	16.4%
Rancho Murieta CSD	4.5%	18.8%
Placer County Water Agency	3.6%	13.5%
City of Folsom	1.6%	10.8%
Del Paso Manor Water District	0.9%	23.3%
Average	10.5%	21.6%
Minimum	0.9%	10.8%
Maximum	18.8%	28.3%

AGENDA ITEM: CC-18

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	:	2017 WaterSmart Innovations Conference
STATUS	:	Information Item
REPORT DATE	:	October 12, 2017
PREPARED BY	:	Hilary Straus, General Manager and Rex Meurer, Water Efficiency Supervisor

The following are highlights of sessions attended at the WaterSmart Innovations 2017 Conference:

Session	Key Points
Opening session, Keynote Speaker Catherine Greener Vice-President Sustainability Xanterra Parks and Resorts	• Due to climate change, we can no longer look to the past to predict the future • Technological Innovation will be key to future success • Strive for zero waste • Build and operate sustainability • Use resources efficiently and effectively • Various sustainability programs have lowered water usage at parks and resorts
A New Ballgame: Empowering Homeowners to Score Landscape Water Savings	• Presented by Joni German with San Diego County Water Authority • San Diego County Water Authority Water Smart Landscape class series highlighted • Focus on turf replacement from beginning through end of project • Challenges include inefficient/old irrigation systems, expensive for homeowners, available funding and technical training

Session	Key Points
Managing Conservation Programs within Different Generation Groups	• Presented by Sarah Fluery, Castaic Lake Water Agency • District's audience includes 4 generations of customers • Outreach should target the Greatest Generation 71-87 years old, Baby Boomers 53-70, Generation X 33-52 and Millennials 13-32 • Different outreach approach for each category • Various outreach should include post cards, electronic and physical outreach
A Non-Revenue Water Tale of Five Cities	• Presented by Will Jernigan, Cavanaugh & Associates • AWWA Standard Water Balance spread sheet is used • 5 agency examples from KS, AL, KY, IN & NC • New tool to collect & analyze data to manage water resources • Water loss % not a good metric • Consider different metrics that includes both a quantitative and qualitative analysis to determine system effectiveness
Big Data and the Future Of Water Management	• Presented by Patrick Atwater, ARGO labs • The future of water management is providing tools and analytics to support water managers in meeting their reliability objectives • Digital integration across a fragmented industry • Historic drought conditions call for new tools to adapt to future uncertainty • The California Data Collaborative launched in January 2016 • A non-profit public data infrastructure is under development to be used for next generation of integrated planning. Data driven demand management tool
Cleaning Up on Conservation	• Presented by Sean Sosa and Deb Lane, Santa Rosa Water • District mission: Protecting public health by sustaining water resources, infrastructure and the environment • Water Use Efficiency Programs include water smart check-up, cash for grass, rainwater harvesting, sustained reduction rebates and high efficiency clothes washer rebates

Session	Key Points
H20 Conservation Education That Works	• Presented by William Nohas, City of Allen, TX • Interactive session format • Designed program content to integrate into school curriculum • Networking with school district admin staff to get connected with science teachers
How to get 10,000 Facebook followers	• Clint Wolfe, Texas A&M Agilife Water University • 13 research and extension centers across Texas • Research topics include Turfgrass breeding, plant virology, plant abiotic stress and plant biotic stress • Software tools available to increase outreach to Facebook users
Approaches to Demand & Conservation Forecasts and Dealing with Data Gaps	• Presented by Michelle Maddaus, Maddaus Water Management Inc. and Andree Johnson, Bay Area Water Supply and Conservation Agency, San Mateo, CA • Approaches to Demand & Conservation Forecasts and dealing with data gaps • Dynamics effecting data include climate change, extreme weather, economy, political changes and water rates • Data gaps necessitate the need for data management refinement and in depth conservation analysis • Data challenges include customer class uniformity, water use data and consistency of available information
Why Consumers Don't Care About Wasting Water and What We Can Do About It	• Presented by Suzanne Shelton, Shelton Group • According to the Shelton Group's market research 64% believe in climate change and 52% feel anxious about climate change • Customers are using greener products as they become available • The average number of greener products is gradually increasing • Technology is becoming greener • When pressed, people admit there is more they could be doing to be greener

Session	Key Points
Monitor My Use: Tales from an AMI web portal	• Presented by Liesel Hans, PhD – Fort Collins Utilities • Advanced Meter Infrastructure: Enables two way communication between customer and utility; Improves information about high and irregular use, helps with water conservation goals, provides early water leak detection, provide enhanced voluntary programs and can read meters remotely
Conservation Toolbox: A Collaborative Platform for Conservation Research	• Presented by Luke Sires, California Water Efficiency Partnership • Why have a toolbox? Provides a platform for searchable articles, diverse content, living documents which includes updates and collaboration • Used a Water Shortage Contingency Plan as an example of one resource contained in the toolbox • The toolbox includes content on technical issues and policy • No login required to access content
Water Cops and Robbers: Policing Unreasonable Water Use in L.A.	• Presented by Damon Turney, Los Angeles Department of Water and Power • Presenter discussed LADWP Water Efficiency program • Elements include Ordinance requirements, unreasonable water use program, water budgets, a desktop audit and a compliance program • Fines for violations range from $1,000.00-$40,000.00 • Jimmy Kimmel appeared in a public outreach video
Ensuring Successful AMI Implementation Through Public Engagement	• Presented by, Sapna Mulki, Hahn Public Communications • AMI is changing the utility landscape • Changes include the customer-utility relationship, consumer behavior and psychology, and utility operations optimization • AMI increases opportunities for customer satisfaction • AMI empowers the utility and it's customer with data • Use of social norms marketing • Elements of a successful outreach campaign include Focus groups, surveys, paid and earned media, follow-up surveys

Session	Key Points
Initiative to Reassess Performance Indicators for Water Loss Management	• Presented by George Kunkel, Kunkel Water Efficiency Consulting • Performance indicators are used throughout society including business, health, consumer, sport and weather • Performance indicators in water loss used to be called unaccounted for water • New performance indicators include the AWWA Water Audit Methodology • Using performance indicators as a percentage is flawed • Percentages do not reveal actual volumes and do not take into account the activities to control losses • Many agencies still using percent's as a performance indicator • Water Loss impacts include volume, value and validity
Developing Collaborative Relationships for Conservation Projects	• Presented by Steve Moorhead, Water Returns • Topics include context, organization and process for real change • Real change factors include environmental, regional and State initiatives and local incentives • Real change actions include integration, sustainability planning and implementation • Real change is working together to apply, measure, improve and promote benefits of sustainable practices

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: Policy Amendment—Adoption of Revised Records Retention Policy
STATUS	: Action Item
REPORT DATE	: August 31, 2017
PREPARED BY	: Christopher Castruita, Management Services Supervisor/Chief Board Clerk

OBJECTIVE:
Consider adoption of Resolution 11-2017, establishing a Records Retention Policy and superseding all previous policies.

BACKGROUND AND ANALYSIS:
As part of the 2017 Strategic Plan, Citrus Heights Water District (CHWD) identified a need to update the current Records Retention Schedule. Staff selected Gladwell Governmental Services, Inc., an expert in local government records, who has assisted over 100 California municipal governments with their records management, records retention and/or document imaging programs, including many special districts, cities, and county agencies. Gladwell Governmental Services was asked to develop and update CHWD's records retention schedule. The revision was necessary to ensure retention periods reflected changes in law, to reduce current and future records storage costs, eliminate duplication of effort, increase efficiency and take advantage of current technology.

The update of the records retention schedules are driven by many factors, including:

- CHWD produces and manages many permanent records
- Escalating records storage expenses
- Technology advancements
- Changes in law

The updated retention schedules for CHWD were written interactively with all departments and divisions participating. They provide clear, specific records descriptions and retention periods, and apply current law and technology to the management of CHWD's records. By identifying which department or division is responsible for maintaining the original record, and by establishing clear retention periods for different categories of records, CHWD will realize significant savings in labor costs, storage costs, free filing cabinet and office space, and realize operational efficiencies.

It is standard business practice for California special districts to authorize the routine destruction of records that have exceeded their adopted retention period, upon the request of the Department Head and with the consent in writing of the Chief Board Clerk and General Manager, which is provided in the attached policy.

It is also standard business practice for California special districts to authorize updates to the schedule without further action of the Board of Directors, which is also provided for in the resolution.

Next Steps
If adopted, staff will work with Gladwell Governmental Services to implement the Records Retention

Policy through multiple means. First, staff will obtain training on use of the schedule this Winter to review and dispose of paper records. As identified in the 2018 Strategic Plan, staff will identify options to implement an enterprise-wide Document Scanning and Indexing system in Spring 2018 to better manage CHWD records, including agendas, minutes, contracts, and engineering plans.

RECOMMENDATION:
Adopt resolution 11-2017, establishing a Records Retention Policy and superseding all previous policies.

ATTACHMENT:
1. Resolution 11-2017
2. Revised Policy 5700 – Records Retention Policy
3. Revised Policy 5700.A – Records Retention Schedule

ACTION:
Moved by Director _____, Seconded by Director _____, Carried _____

ATTACHMENT 1

Resolution 11-2017

CITRUS HEIGHTS WATER DISTRICT
RESOLUTION NO. 11-2017

RESOLUTION OF THE BOARD OF DIRECTORS OF
CITRUS HEIGHTS WATER DISTRICT
ESTABLISHING A RECORDS RETENTION SCHEDULE
AND SUPERSEDING ALL PREVIOUS POLICIES

WHEREAS, the maintenance of numerous records is expensive, slows document retrieval, and is not necessary after a certain period of time for the effective and efficient operation of the government of the CITRUS HEIGHTS WATER DISTRICT; and

WHEREAS, Section 60200 of the Government Code of the State of California provides that the legislative body of a special district may authorize at any time the destruction or disposition of any duplicate record, paper, or document, the original or a permanent photographic record of which is in the files of any officer or department of the district; and

WHEREAS, Section 60201(b)(2) of the Government Code of the State of California permits the Board of Directors to adopt and comply with a record retention schedule that complies with guidelines provided by the Secretary of State; and

WHEREAS, The Board of Directors previously adopted Policy 5700 establishing a records retention schedule; and

WHEREAS, the General Manager has developed policies and procedures relating to records management, including the requirement of the approval of a list of the types of records destroyed or disposed of that reasonably identifies the information contained in the records in each category; and

WHEREAS, the Board of Directors wishes to amend Policy 5700 as set forth in this Resolution to implement a revised records retention schedule, consistent with the law and good governance.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT that Policy No. 5700, establishing a records retention schedules and designating responsibilities are hereby repealed and superseded in their entirety by Exhibit A.

PASSED AND ADOPTED by the Board of Directors of CITRUS HEIGHTS WATER DISTRICT, this 18th day of October, 2017, by the following vote, to wit:

AYES: Directors
NOES: Directors
ABSTAIN: Directors
ABSENT: Directors
SEAL

Caryl F. Sheehan, President
Board of Directors
Citrus Heights Water District

ATTEST:

_____

Hilary M. Straus, Secretary
Citrus Heights Water District

CERTIFICATION:

I, HILARY M. STRAUS, hereby certify and acknowledge that Resolution 11-2017 was adopted by the Board of Directors of Citrus Heights Water District at a duly called and noticed regular meeting of said Board on the 18th day of October 2017.

_____

Hilary M. Straus, Secretary
Citrus Heights Water District

ATTACHMENT 2

Revised Policy 5700 – Records Retention Policy

CITRUS HEIGHTS WATER DISTRICT
POLICIES AND PROCEDURES MANUAL

POLICY TYPE	:	OPERATIONS
POLICY TITLE	:	RECORDS RETENTION AND DESTRUCTION
POLICY NUMBER	:	5700
DATE ADOPTED	:	MARCH 18, 1997
DATE AMENDED	:	OCTOBER 18, 2017
AMENDMENTS	:	(1) MARCH 7, 2000; (2) NOVEMBER 19, 2014
AUTHORITY	:	GOVERNMENT CODE SECTIONS 34090, 53921, 60200-60203; EVIDENCE CODE SECTION 1551

5700.00 RECORDS RETENTION AND DESTRUCTION

The District shall establish and implement a Records Management Program to support its operations, to ensure the preservation of vital records, and to ensure compliance with applicable statutes regarding public agency records. A Records Retention and Disposal Schedule, included as Appendix A to this Policy, shall be established and implemented to ensure that records are retained for the period prescribed by law, and that records no longer required by the District for legal or operational purposes are destroyed.

5700.01 Authorization for Future Updates to Appendix A

With the consent of the District General Counsel and General Manager, updates are hereby authorized to be made to the Records Retention Schedules without further action by the Board of Directors of the Citrus Heights Water District.

5700.02 Implementation of the Records Management Program

The Records Management Program shall be implemented under the direction of the General Manager or his/her designee.

5700.03 Definitions of Records

The term "records" as used herein shall include documents, instructions, books, microforms, electronic files, magnetic tape, optical media, or papers; as defined by the California Public Records Act.

5700.10 Retention of Records

Criteria used to determine the need to retain a record include: statutory requirements; the function and purpose of the record; the information content; the use of the record; the historical significance of the record; and the uniqueness of the record (whether the information in the record exists elsewhere).

5700.20 Destruction of Records

Destruction or disposition of records that have exceeded the retention periods as set forth

in Appendix A will not adversely affect any interest of the District or the public.

The records of the Citrus Heights Water District, as set forth in the Records Retention Schedule Exhibit A, attached hereto and incorporated herein by this reference, are hereby authorized to be destroyed as provided by Section 60201 et seq. of the Government Code of the State of California and in accordance with the provision of said schedule in accordance with District policies and procedures, without further action by the Board of Directors of the Citrus Heights Water District.

ATTACHMENT 3

Revised Policy 5700.A, Records Retention Schedule

HOW TO USE RETENTION SCHEDULES

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A legend explaining the information presented in the retention schedule has been printed on the back of each page for your easy reference; an index to locate records is also provided.

The specified retention period applies regardless of the media of the record: If a record is stored on paper and a computer file on a hard drive, both records should be destroyed (or erased) after the specified period of time has elapsed.

Copies or duplicates of records should never be retained longer than the prescribed period for the original record.

STRUCTURE: DISTRICTWIDE, DEPARTMENTS & DIVISIONS

The District-wide retention schedule includes those records all departments have in common (letters, memorandums, purchase orders, etc.). These records are NOT repeated in the Department retention schedule, unless that department is the Office of Record, and therefore responsible for maintaining the original record for the prescribed length of time.

Each department has a separate retention schedule that describes the records that are unique to its department, or for which it is the Office of Record. Where appropriate, the department retention schedules are organized by Division within that Department. If a record is not listed in your department retention schedule, refer to the District-wide retention schedule. An index will be provided for your reference.

BENEFITS

This retention schedule will provide the District with the following benefits:

- Reduce administrative expenses, expedite procedures
- Free filing cabinet and office space
- Reduce the cost of records storage
- Eliminate duplication of effort within the District
- Find records faster
- Easier purging of file folders
- Determine what media should be used to store records

For questions, please contact the District Clerk.

Authorization to Destroy Records:

All original records that have exceeded their retention period must be authorized for destruction according to District Policies & Procedures prior to destroying them.

Copies, drafts, notes and non-records do NOT require authorization, and can be destroyed “When No Longer Required.”

- If there is a **minimum** retention (“ **Minimum 2 years**"), it must be authorized for destruction before it is destroyed, as it is an original record.

- If there is **NOT** a minimum retention ("When No Longer Required"), it does NOT need to be authorized for destruction prior to destruction, as it is a preliminary draft / transitory record or a copy.

- On every page of the schedules (near the top, just under the column headings) are important instructions, including instructions regarding holds on destroying records. “**Litigation, complaints, claims, public records act requests, audits and/or investigations suspend normal retention periods (retention resumes after settlement or completion).**”

RECORDS RETENTION SCHEDULE LEGEND

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OFR (Office of Record): The department that keeps the original or "record copy." Usually it is the department that originates the record, unless the item is for a District Board meeting (then it is the District Clerk.)

Records Description: The record series (a group of like records).

Transitory Records: Records that are not retained in the ordinary course of business, including without limitation: Preliminary drafts, notes, or interagency or intra-agency memoranda and records having only transitory value. Examples: Telephone messages, meeting room reservation schedules, logs, source records entered into a computer system that qualify as a "trusted system", etc.

Non-Record: Documents, studies, books and pamphlets produced by outside agencies, preliminary drafts not retained by the District in the ordinary course of business.

Retention/Disposition:
Active: How long the file remains in the immediate office area (*guideline*)
Inactive: How long the file is in off-site storage, stored on Optical Disk or Microforms (*guideline*)
Total Retention: The total number of years the record will be retained active and inactive

For file folders containing documents with different retention timeframes, use the document with the longest retention time.

P = Permanent

Indefinite = No fixed or specified retention period; used for databases, because the data fields are interrelated.

Vital? = Those records that are needed for basic operations in the event of a disaster.

Media Options (*guideline*) – the form of the record:
Mag = Computer Magnetic Media (hard drives, tapes, USB Drives, thumb drives, etc.)
Mfr = Microforms (aperture cards, microfilm, microfiche, or jackets)
Ppr = Paper
OD = Optical Disk, CD-r, DVD-r, WORM, or other media which does not allow changes

Scan / Import (*guideline*)**:**
"S" indicates the record should be scanned into the document imaging system;
"I" indicates the record should be electronically imported into the document imaging system;
"M" indicates the record should be microfilmed

Destroy Paper after Imaged & QCd (*guideline, if record is imaged*): QCd=Quality Checked. "Yes" indicates the paper version may be destroyed if the document has been imaged (microfilmed, scanned or imported onto Optical Disk – CD-R, WORM or DVD-R), and both the images and indexing have been QCd.

Legend for legal citations (§: Section)

CC: Civil Code (CA)
CFC: California Fire Code
EVC: Evidence Code (CA)
FTB: Franchise Tax Board (CA)
HUD: Housing & Urban Develop. (US)
PC: Penal Code (CA)
USC: United States Code (US)
WC: Water Code
B&P: Business & Professions Code (CA)
CCP: Code of Civil Procedure (CA)
CFR: Code of Federal Regulations (US)
FA: Food & Agriculture Code (CA)
GC: Government Code (CA)
LC: Labor Code (CA)
R&T: Revenue & Taxation Code (CA)
VC: Vehicle Code (CA)
CBC: California Building Code
CCR: California Code of Regulations (CA)
EC: Elections Code (CA)
FC: Family Code (CA)
H&S: Health & Safety Code (CA)
Ops. Cal. Atty. Gen.: Attorney General Opinions (CA)
UFC: Uniform Fire Code
W&I: Welfare & Institutions Code (CA)

RECORDS RETENTION SCHEDULE: DISTRICT-WIDE STANDARDS

Office of Record	Retention No.	Records Description	Retention / Disposition							Comments / Reference
(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
Retentions apply to the department that is NOT the Office of Record (OFR) or the "Lead Department". If you are the OFR, refer to your department retention schedule.										
Retentions begin when the act is completed, and imply a full file folder (e.g. last document + 2 years), since destruction is normally performed by file folder.										
Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Human Resources / Risk Manage.	DW-001	Accident or Damage Reports	Copies - When No Longer Required		Copies - When No Longer Required	Yes: Until Settled	Mag, Ppr			GC §60200
Finance / Accounts Payable	DW-002	Accounts Payable (Invoices, Petty Cash, Travel Expense Reimbursements, etc.)	Copies - When No Longer Required		Copies - When No Longer Required	Yes: Until Paid	Mag, Ppr			Also see Grants. copies; GC §60200
Clerk of the Board	DW-003	Agendas, Agenda Packets (Board of Directors)	Copies - When No Longer Required		Copies - When No Longer Required	Yes	Mag, Ppr			copies; GC §60200
Clerk of the Board	DW-004	Agreements & Contracts **(ALL)**	Copies - When No Longer Required		Copies - When No Longer Required	Yes	Mag, Ppr			Send all originals to the Clerk of the Board; GC §60200
Lead Department	DW-005	Agreements & Contracts - ALL: **ADMINISTRATIVE RECORDS** (Correspondence, project schedules, copies of invoices, backup, insurance certificates etc.) Also see grant retention, if applicable.	Completion + 10 years		Completion + 10 years		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Also see Grants. Covers E&O Statute of Limitations (insurance certificates are filed with agreement); Published Audit Standards=4-7 years; Statute of Limitations: Contracts & Spec's=4 years, Wrongful Death=comp. + 5 years, Developers must retain their records for completion + 10 years; CCP §§336(a), 337 et. seq., GC §60201

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Adopted:

RECORDS RETENTION SCHEDULE: DISTRICT-WIDE STANDARDS

Office of Record	Retention No.	Records Description	Retention / Disposition							Comments / Reference
(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
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Lead Department	DW-006	Agreements & Contracts: **Unsuccessful bids**	Bid Opening + 2 years		Bid Opening + 2 years		Mag, Ppr			Special Districts are required to keep public works unaccepted bids for 2 years; GC §60201(d)(11)
	DW-007	Association Records (external associations - e.g., ACWA, etc.)	When No Longer Required		When No Longer Required		Mag, Ppr			Non-records; GC §60201 et seq.
	DW-008	Bids: See Agreements					Mag, Ppr			
	DW-009	Brochures: See Reference Manuals					Mag, Ppr			
Finance	DW-010	Budgets - Finals, Drafts, Reports, Worksheets	Copies - When No Longer Required		Copies - When No Longer Required	Yes: Current Fiscal Year	Mag, Ppr			GC §§60200, 53901
Human Resources / Risk Manage.	DW-011	Claims / Litigation	Copies - When No Longer Required		Copies - When No Longer Required	Yes: Before Settlement	Mag, Ppr			GC §§60200, 60201 et seq.
Lead Dept.	DW-012	Clippings / Newspaper Clippings	When No Longer Required		When No Longer Required		Mag, Ppr			Non-records; GC §60201 et seq.
Lead Dept.	DW-013	Committees, Task Forces, Associations, Commissions, & Boards: **External** Organizations (e.g. Association of California Water Agencies, etc.)	When No Longer Required		When No Longer Required		Mag, Ppr			Non-records
	DW-014	Contracts: See Agreements					Mag, Ppr			

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Retentions apply to the department that is NOT the Office of Record (OFR) or the "Lead Department". If you are the OFR, refer to your department retention schedule.										
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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
	DW-015	Copies or duplicates of any record	Copies - When No Longer Required		Copies - When No Longer Required		Mag, Ppr			GC §60200
Lead Dept.	DW-016	Correspondence - **Regulatory Agencies**	When No Longer Required - **Minimum 10 years**		When No Longer Required - **Minimum 10 years**	Yes: While Active Issues	Mag, Ppr			District preference; some correspondence from Regulatory Agencies need to be retained for long periods of time; GC §60201
Dept. that **Authors** Document or Receives the District's Original Document	DW-017	Correspondence - **Routine** (e .g. Administrative, Chronological, Communications, General Files, Letters, Memorandums, Miscellaneous Reports, Reading Files, Working Files, etc. Does NOT include Regulatory Agency Correspondence)	When No Longer Required - **Minimum 2 years**		When No Longer Required - **Minimum 2 years**		Mag, Ppr			Department preference; GC §60201

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Office of Record	Retention No.	Records Description	Retention / Disposition							Comments / Reference
(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
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Dept. that Authors Document or Receives the District's Original Document	DW-018	Correspondence - **TRANSITORY / PRELIMINARY DRAFTS,** Interagency and Intraagency Memoranda not retained in the ordinary course of business **Content NOT Substantive, or NOT made or retained for the purpose of preserving the informational content for future reference** (e.g. calendars, checklists, e-mail or social media posting, instant messaging, inventories, invitations, logs, mailing lists, meeting room registrations, speaker slips, supply inventories, telephone messages, text messages. transmittal letters, thank yous, requests from other cities, undeliverable envelopes, visitors logs, voice mails, webpages, etc.)	When No Longer Required		When No Longer Required		Mag, Ppr			Electronic and paper records are categorized, filed and retained based upon the CONTENT of the record. Records where either the Content relates in a substantive way to the conduct of the public's business, or that ARE made or retained for the purpose of preserving the informational content for future reference are saved by placing them in an electronic or paper (project) file folder and retained for the applicable retention period, If not mentioned here, consult the District Attorney to determine if a record is considered transitory / preliminary draft. GC §§60201, 6252, 6254(a); 64 Ops. Cal. Atty. Gen. 317 (1981); District of San Jose v. Superior Court (Smith). S218066. Supreme Court of California, 2017
Lead Dept.	DW-019	Credit Card Slips (Signed by Employees)	5 years		5 years		Mag, Ppr			For auditing purposes; GC §60201 et seq.

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Lead Dept.	DW-020	Drafts & Notes: Drafts that are revised (retain final version)	When No Longer Required		When No Longer Required		Mag, Ppr			As long as the drafts and notes are not retained in the "Regular Course of Business". GC §60201, GC §6254
Lead Dept.	DW-021	Grants **(SUCCESSFUL** - all records, including FEMA claims)	2 years	After Funding Agency Audit, if Required - **Minimum 5 years**	After Funding Agency Audit, if required - **Minimum 5 years**		Mag, Ppr			District Preference (may include records pertaining to independent contractor's compensation, or expense reimbursement); Meets auditing standards; Uniform Admin. Requirements for Grants to Local Governments is 3 years from expenditure report or final payment of grantee or subgrantee; 2 CFR 200.333;221 CFR 1403.36 & 1403.42(b); 24 CFR 85.42, 91.105(h), 92.505, 570.490, & 570.502(a&b), 28 CFR 66.42; 29 CFR 97.42; 40 CFR 31.42; 44 CFR 13.42; 45 CFR 92.42; OMB Circular A-110 & A-133; GC §60201
Lead Dept.	DW-022	Grants: **UNSUCCESSFUL** (Applications, Correspondence, etc.)	2 years		2 years		Mag, Ppr			Department Preference; GC §60201
Lead Dept.	DW-023	Index to Inactive Records / Records Stored in Records Center / Inventory of Records in Records Center	Indefinite		Indefinite		Mag, Ppr			Department Preference; GC §60201

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
	DW-024	Invoices - see Accounts Payable					Mag, Ppr			
Clerk of the Board	DW-025	Ordinances	Copies - When No Longer Required		Copies - When No Longer Required	Yes	Mag, Ppr			GC §60201
Human Resources	DW-026	Personnel Files - **Department-level Copies**	Send to Human Resources Upon Separation		Send to Human Resources Upon Separation	Before Separation	Mag, Ppr			Ensure records kept in Department files comply with District policy; Originals are maintained by Personnel. Supervisors notes should be maintained in a separate folder and be incorporated in the employee's annual performance review; 29 CFR 1602.31 & 1627.3(b)(ii), 8 CCR §3204(d)(1) et seq., GC §§12946, 60201
Human Resources	DW-027	Personnel Files - Department-level **Supervisor's Notes**	After Performance Evaluation or Documented Discipline		After Performance Evaluation or Documented Discipline	Before Separation	Mag, Ppr			Preliminary Drafts; Supervisors notes should maintained in a separate folder and be incorporated in the employee's annual performance review; 29 CFR 1602.31 & 1627.3(b)(ii), 8 CCR §3204(d)(1) et seq., GC §§12946, 60201
Lead Dept.	DW-028	Photographs	When No Longer Required		When No Longer Required		Mag, Ppr			GC §60201

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	DW-029	Policies & Procedures - See Reference Manuals					Mag, Ppr			
Clerk of the Board	DW-030	Records Destruction Lists	Copies - When No Longer Required		Copies - When No Longer Required		Mag, Ppr			Copies; GC §60200
Finance	DW-031	Travel Authorizations	Copies - When No Longer Required		Copies - When No Longer Required		Mag, Ppr			GC §60200
Authoring Dept.	DW-032	Reference Materials: Policies, Procedures, Brochures, Manuals, Newsletters	When No Longer Required		When No Longer Required		Mag, Ppr			Documents of historical significance should be retained longer; GC §60201
Lead Dept.	DW-033	Reports and Studies - White Papers, Issue Papers, Position Papers, Scientific Studies (other than Annual Reports)	Minimum 2 years		Minimum 2 years		Mag, Ppr			GC §60201
Clerk of the Board	DW-034	Resolutions	Copies - When No Longer Required		Copies - When No Longer Required	Yes, depending upon subject	Mag, Ppr			copies; GC §60200
Lead Dept.	DW-035	Surveys / Questionnaires (that the District issues). If a **summary** of the data is compiled, the survey forms are considered a draft or transitory record, and can be destroyed when no longer required.	2 years		2 years		Mag, Ppr			GC §§60200, 60201

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Finance / Payroll	DW-036	Time Sheets	Copies - When No Longer Required		Copies - When No Longer Required		Mag, Ppr			GC §60201

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RECORDS RETENTION SCHEDULE: CLERK OF THE BOARD

Office of Record	Retention No.	Records Description	Retention / Disposition							Comments / Reference
(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
If the record is not listed here, refer to the Retention for District-Wide Standards.										
Retentions begin when the act is completed, and imply a full file folder (e.g. last document + 2 years), since destruction is normally performed by file folder.										
Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Clerk of the Board	COB-001	Agendas & Agenda Packets - District Board of Directors (Includes Agenda Staff Reports, Annotated Agendas, News clippings, etc.)	2 years	P	P	Yes: Before Meeting Date	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference; GC §60201
Clerk of the Board	COB-002	Agreements & Contracts - **INFRASTRUCTURE - Engineering, JPAs, etc.** Agreement or Contract, Insurance Certificates & Notices of Completion. Agreement or Contract includes all contractual obligations (e.g. RFP, Specifications, Successful Proposal / Scope of Work, Certificates of Insurance, and amendments) Examples of Infrastructure: Architects, Treatment Plants, Lines, Buildings, etc.	Completion	P	P	Yes: Before Completion	Mag, Mfr, OD, Ppr	S / I	Yes: After QC	Department Preference; All infrastructure, JPAs, & Mutual Aid contracts are permanent for emergency preparedness; Statute of Limitations is 4 years; 10 years for Errors & Omissions; CCP §§337. 337.1(a), 337.15, 343; GC §60201 et seq.

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RECORDS RETENTION SCHEDULE: CLERK OF THE BOARD

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(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
If the record is not listed here, refer to the Retention for District-Wide Standards.										
Retentions begin when the act is completed, and imply a full file folder (e.g. last document + 2 years), since destruction is normally performed by file folder.										
Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Clerk of the Board	COB-003	Agreements & Contracts - **NON INFRASTRUCTURE - Administration & Operations - Equipment Purchases, Consulting Services, Leases, Vehicle Purchases, etc.** Agreement or Contract, Insurance Certificates & Notices of Completion. Agreement or Contract includes all contractual obligations (e.g. RFP, Specifications, Successful Proposal / Scope of Work, Certificate of Insurance, and amendments) Examples of Non-Infrastructure: Consultants, Painting, Maintenance, Franchise Agreements, etc.	Completion	10 years	Completion + 10 years	Yes: Before Completion	Mag, Mfr, OD, Ppr	S / I	Yes: After QC	Department Preference; Covers E&O Statute of Limitations; Published Audit Standards=4-7 years; Statute of Limitations: Contracts & Spec's=4 years, Wrongful Death=comp. + 5 years, Developers=comp. + 10 years; Statewide guidelines propose termination + 5 years; CCP §§336(a), 337 et. seq., GC §60201 et seq.
Clerk of the Board	COB-004	Agreements & Contracts: Political & Outside Jurisdictions Conjunctive Agreements, Cooperative Agreements, JPAs (Joint Powers Authorities), Water Supply Agreements	2 years	P	P	Yes: Before Superseded	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference; GC §60201

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RECORDS RETENTION SCHEDULE: CLERK OF THE BOARD

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Clerk of the Board	COB-005	Appointments / Resignations	2 years	P	P		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference; GC §60201
Clerk of the Board	COB-006	Association Records (external associations - e.g., ACWA, etc.)	When No Longer Required		When No Longer Required		Mag, Ppr			Non-records; GC §60201 et seq.
Clerk of the Board	COB-007	Director's Handbook (Policy)	When No Longer Required - **Minimum of Superseded + 2 years**		When No Longer Required - **Minimum of Superseded + 2 years**		Mag, Ppr			Documents of historical significance should be retained longer; GC §60201
Clerk of the Board	COB-008	District Formation Records, Acquisition of other Districts	2 years	P	P		Mag, Mfr, OD, Ppr	S / I	No	Department preference (historical purposes); GC §60201
Clerk of the Board	COB-009	Elections - Historical (Sample Ballot, Election Results)	2 years	P	P		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference (historical purposes); GC §60201
Clerk of the Board	COB-010	Elections: Correspondence, Notifications & Publications, Certificate of Election, etc.	2 years		2 years		Mag, Ppr			Department preference (historical purposes); GC §60201
Clerk of the Board	COB-011	FPPC 700 Series Forms (Statement of Economic Interests): **DESIGNATED EMPLOYEES & CONSULTANTS** (specified in the District's Conflict of Interest code)	7 years		7 years		Mag, Ppr			District maintains original statements; GC §81009(e)&(g)

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RECORDS RETENTION SCHEDULE: CLERK OF THE BOARD

Office of Record	Retention No.	Records Description	Retention / Disposition							Comments / Reference
(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
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Clerk of the Board	COB-012	FPPC 700 Series Forms (Statement of Economic Interests): **PUBLIC OFFICIALS** (elected & not elected. Includes District Board Members, General Manager)	7 years		7 years		Mag, Ppr			Department preference (only required for 4 years); GC §81009(f)&(g)
Clerk of the Board	COB-013	FPPC Form 801 (Gift to Agency Report)	7 years		7 years		Mag, Ppr			Must post on website; 2 CCR 18944(c)(3)(G); GC §81009(e)
Clerk of the Board	COB-014	FPPC Form 802 (Tickets Provided by Agency Report)	7 years		7 years		Mag, Ppr			Must post on website for 4 years; GC §81009€
Clerk of the Board	COB-015	FPPC Form 803 (Behested Payment Report)	7 years		7 years		Mag, Ppr			GC §81009e
Clerk of the Board	COB-016	FPPC Form 804 (Agenda Report of New Positions)	P		P		Mag, Ppr			FPPC Regulation 18734(c); GC §81009e; GC §60201
Clerk of the Board	COB-017	FPPC Form 805 (Agency Report of Consultants)	P		P		Mag, Ppr			FPPC Regulation 18734(c); GC §81009e; GC §60201
Clerk of the Board	COB-018	FPPC Form 806 (Agency Report of Public Official Appointments)	7 years		7 years		Mag, Ppr			Must post on website; 2 CCR 18705.5(b)(3); GC §60201, 81009e
Clerk of the Board	COB-019	Historical Records	2 years	P	P		Mag, Mfr, OD, Ppr	S / I	No	District Secretary Determines Historical Significance; GC §60201
Clerk of the Board	COB-020	Minutes: Board of Directors	2 years	P	P	Yes (all)	Mag, Mfr, OD, Ppr	S / I	No	GC §60201(d)(3)
Clerk of the Board	COB-021	Notices: Affidavits of Postings and Publications	2 years		2 years		Mag, Ppr			Brown Act challenges must be filed within 30 or 90 days of action; GC §§60201, 54960.1(c)(1)

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RECORDS RETENTION SCHEDULE: CLERK OF THE BOARD

Office of Record	Retention No.	Records Description	Retention / Disposition							Comments / Reference
(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
If the record is not listed here, refer to the Retention for District-Wide Standards.										
Retentions begin when the act is completed, and imply a full file folder (e.g. last document + 2 years), since destruction is normally performed by file folder.										
Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Clerk of the Board	COB-022	Oaths of Office (Elected Officials Only)	2 years	P	P		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department Preference; GC §60201
Clerk of the Board	COB-023	Ordinances	2 years	P	P	Yes (all)	Mag, Mfr, OD, Ppr	S / I	No	GC §60201 et. seq.
Clerk of the Board	COB-024	Organization Charts - In Agenda Packets	5 years	P	P		Mag, Mfr, OD, Ppr	S/ I	Yes: After Annual Audit	GC §60201 et seq.
Clerk of the Board	COB-025	Proclamations	2 years		2 years		Mag, Mfr, OD, Ppr	S / I	Yes: After QC'd & OD	GC §60201
Clerk of the Board	COB-026	Public Records Act Requests	2 years		2 years		Mag, Ppr			Department Preference; GC §60201
Clerk of the Board	COB-027	Records Destruction Authorization Forms	10 years		10 years		Mag, Ppr			Department Preference; GC §60201
Clerk of the Board	COB-028	Real Property Acquisition or Sale: Deeds, Easements, Rights of Way, etc.	P		P		Mag, Mfr, OD, Ppr	S / I	No	Department Preference; GC §60201
Clerk of the Board	COB-029	Resolutions	2 years	P	P	Yes (all)	Mag, Mfr, OD, Ppr	S / I	No	GC §60201 et. seq.
Clerk of the Board	COB-030	Secretary of State Statement of Facts	P		P		Mag, Mfr, OD, Ppr	S / I	No	Department preference; GC §60201 et. seq.
Clerk of the Board	COB-031	Subpoenas	2 years		2 years		Mag, Ppr			GC §60201(d)(5)

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RECORDS RETENTION SCHEDULE: ENGINEERING

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(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC'd?	
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Engineering	EN-001	Aerials	2 years	P	P		Mag, Mfr, OD, Ppr	S/I	Yes: After QC & OD	Department Preference; GC §60201
Engineering	EN-002	Annexations / Boundary Changes Index, Maps, Documents	Upon Completion	P	P	Yes	Mag, Mfr, OD, Ppr	S	No	GC §60201 et seq.
Engineering	EN-003	CEQA / NEPA Documents: **Prepared by others for NON-District Projects** (District comments) (Environmental Impact Reports (EIRs), Environmental Assessments, Negative Declarations, etc)	When No Longer Required		When No Longer Required		Ppr			Non-records; GC §60200
Engineering	EN-004	CEQA / NEPA Documents: **Prepared for District Purposes** (Environmental Impact Reports (EIRs), Environmental Assessments, Negative Declarations, etc)	2 years	P	P	Yes: Until Project Completed	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Usually filed in Project File; GC §60201
Engineering	EN-005	Comment Letters: No Comment, Non-Interference Letters to City or County for their proposed projects	2 years		2 years		Mag, Ppr			Department preference; GC §60201
Engineering	EN-006	Correspondence with **Regulatory Agencies**	When No Longer Required - **Minimum 10 years**		When No Longer Required - **Minimum 10 years**	Yes: While Active Issues	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	District preference; some correspondence from Regulatory Agencies need to be retained for long periods of time; GC §60201

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Engineering	EN-007	Customer Advisory Committee (CAC)	2 years		2 years	Yes: Until Completed	Mag, Mfr, OD, Ppr	S	Yes: After QC	GC §60201 et seq.
Engineering	EN-008	Customer Service / Changes to System or Meters - **ALL FINAL RECORDS**	Upon Completion	P	P	Yes: Until Completed	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	For disaster preparedness purposes; GC §60201 et seq.
Engineering	EN-009	Easements, Rights of Way, & Recorded Grant Deeds	While active	P	P		Mag, Mfr, OD, Ppr	S	No	Department preference; GC §60201
Engineering	EN-010	Environmental Agencies / Regulatory Agencies Permits (EPA, DHS / DPH, NPDES, etc.) **Note: Does not include AQMD**	When No Longer Required - **Minimum Expiration + 3 years**		When No Longer Required - **Minimum Expiration + 3 years**	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference; GC §60201; NPDES Monitoring records required for 3 years in Federal law; 40 CFR §§122.21, 122.41
Engineering	EN-011	Inspection Reports	While active	P	P		Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference; GC §60201
Engineering	EN-012	Projects (CIP or Private Development): **Large Format Drawings** Design Drawings (finals), Record Drawings ("As Builts")	Upon Completion	P	P	Yes: Until Completed	Mag, Mfr, OD, Ppr	S	No	For Disaster Recovery Purposes; Final environmental determinations are required to be kept a "reasonable period of time"; 14 CCR §15095(c); GC §60201 et seq.

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Engineering	EN-013	Projects (CIP or Private Development): **Permanent File** Agreements / Contracts (copies), Bid Package(Winning), Change Orders, Environmental, Final As-Built Drawings (Record Drawings), Inspection Pictures, Inspection Reports, Material Testing, Operations & Maintenance Manuals, Permits (Design, Environmental), Preliminary Design Report, Rights of Way / Easements, Soils, Geotechnical Reports, Specifications, Submittals, Surveys, CAD files, Engineer's Calculation Files	Upon Completion	P	P	Yes: Until Completed	Mag, Mfr, OD, Ppr	S/I	Yes: After QC & OD, except for Easements & As-Builts	Department preference; retained for disaster preparedness purposes; Statewide guidelines propose Permanent for Infrastructure plans; GC §60201

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Engineering	EN-014	Projects (CIP or Private Development): **Administration - 10 year file** Project Administration, Bid Summary, Bonds, Certified Payroll, Grant Documents, Errors & Omissions, Insurance Certificates, Notifications, Progress Payments, Punch Lists, Videos Post-Construction & Pre-Construction, Bid Bonds (returned), Bond Copies of Drawings, Correspondence (Transitory / Preliminary Drafts), Engineer's Estimates, Memoranda, NPDES, Permits (Construction & Street Opening), Project Schedules, Requests for Information, Stop Notices - Claims, CCTV	Completion	10 years or After Funding Agency Audit, if required, whichever is longer	**Completion + 10 years** or After Funding Agency Audit, if required, whichever is longer	Yes: Until Completed	Mag, Ppr			Some grant funding agencies require audits; Statute of Limitations for Errors & Omissions is 10 years; Published Audit Standards=4-7 years; Statute of Limitations: Contracts & Spec's=4 years, Wrongful Death=comp. + 5 years, Developers=comp. + 10 years; Statewide guidelines propose termination + 5 years; CCP §337 et. seq., GC §60201
Engineering	EN-015	Projects (CIP or Private Development): **Unsuccessful Proposals**	2 years		2 years	Yes: Until Completed	Mag, Mfr, OD, Ppr	S	Yes: After QC	GC §60201 et seq.

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Engineering	EN-016	Real Estate Appraisal Reports ALL (Whether Purchased or Not)	2 years	3 years	5 years	Yes: Before Purchase	Mag, Ppr			Department preference (not accessible to the public until close of escrow); USPAP (Uniform Standards of Professional Appraisal Practice) ethical standards require appraisers to retain records for at least 5 years, or final disposition + 2 years, if used in a judicial proceeding; GC §§60201, 6254(h)
Engineering	EN-017	Reports & Studies (Soils Report, Water Availability,)	2 years	P	P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department Preference; GC §60201 et seq.
Engineering	EN-018	Sewer Improvement Districts / Assessment Districts / CFDs	Upon Completion	P	P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	GC §60201 et seq.
Engineering	EN-019	Tracts / Subdivisions / Parcel Maps / Tentative Tracts (may contain drawings of our easements)	Upon Completion	P	P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference (Tracts maintained by appropriate County and/or City); GC §60201
Engineering	EN-020	Wastewater Special Studies	When No Longer Required - **Minimum 3 years**		When No Longer Required - **Minimum 3 years**	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department Preference to comply with NPDES regulations; 40 CFR §§122.21, 122.41; GC §60201 et seq.
Engineering	EN-021	Water Master Plans	2 years	P	P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department Preference (updated every 5 years); GC §60201 et seq.

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Engineering	EN-022	Will-Serve Letters / Availability Letters	2 years	P	P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference; GC §60201

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RECORDS RETENTION SCHEDULE: FINANCE

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
ADMINISTRATION / GENERAL ACCOUNTING										
Finance / General Accounting	FN-001	Audit Annual Reports / Audited Financial Statements / Comprehensive Annual Financial Report (CAFR) with Audit Management Letters / Audit Reports	5 years	P	P		Mag, Mfr, OD, Ppr	S/ I	Yes: After Annual Audit	Department Preference; GC §60201 et seq.
Finance / General Accounting	FN-002	Audit Work Papers (Finals) Includes Depreciation Schedules	5 years		5 years		Mag, Ppr			Department Preference; GC §60201
Finance / General Accounting	FN-003	Audits - Single Audits	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / General Accounting	FN-004	Bank Statements / Checking Account Reconciliation / Fiscal Agent Statements, Trustee Statements, Investment Account Statements, etc.	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / General Accounting	FN-005	Bond Registers	2 years	Fully Defeased + 10 years	Fully Defeased + 10 years	Yes: Until Maturity	Mag, Mfr, OD, Ppr	S / I	No	Statute of Limitations for bonds, mortgages, trust deeds, notes or debentures is 6 years; Bonds issued by local governments are 10 years; There are specific requirements for disposal of unused bonds; CCP §§336 et seq., 337.5(a); 26 CFR 1.6001-1(e): GC §43900 et seq.

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Finance / General Accounting	FN-006	Bonds / Certificates of Participation / Transcripts / Disclosure Reports	2 years	Fully Defeased + 10 years	Fully Defeased + 10 years	Yes: Until Maturity	Mag, Mfr, OD, Ppr	S / I	No	Department Preference; Statute of Limitations for bonds, mortgages, trust deeds, notes or debentures is 6 years; Bonds issued by local governments are 10 years; There are specific requirements for disposal of unused bonds; CCP §§336(a)(1) & (2), 337.5(2); GC §43900 et seq. GC §60201 et seq.
Finance / General Accounting	FN-007	Bonds Issue Records	2 years	Fully Defeased + 10 years	Fully Defeased + 10 years	Yes: Until Maturity	Mag, Mfr, OD, Ppr	S / I	No	Department Preference; Statute of Limitations for bonds, mortgages, trust deeds, notes or debentures is 6 years; Bonds issued by local governments are 10 years; There are specific requirements for disposal of unused bonds; CCP §§336(a)(1) & (2), 337.5(2); GC §43900 et seq. GC §60201 et seq.
Finance / General Accounting	FN-008	Budgets: Adopted	5 years	P	P	Yes: Current Fiscal Year	Mag, Mfr, OD, Ppr	S/ I	Yes: After Annual Audit	Department Preference; GC §60200
Finance / General Accounting	FN-009	Budgets: Proposed, Work Papers, Drafts, etc.	When No Longer Required		When No Longer Required		Mag, Ppr			Department Preference; Preliminary drafts; GC §60200
Finance / General Accounting	FN-010	Cash Reconciliation	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / General Accounting	FN-011	Chart of Accounts (Print out if a major software change is made in order to retain historical account numbers)	2 years	5 years	7 years		Mag, Ppr			Department Preference; GC §60200

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Finance / General Accounting	FN-012	Equipment Inventory	When No Longer Required		When No Longer Required		Mag, Ppr			Preliminary drafts (the Financial Database is the original); GC §60200
Finance / General Accounting	FN-013	Financial Reports: Journals, Ledgers, Reconciliations, Registers, Reports, Transaction Histories, Balance Sheets, Budget Adjustments, Billing Registers for New Financial System, Edit Lists, (**MONTHLY OR PERIODIC**) Does NOT include year-end General Ledger.	When No Longer Required		When No Longer Required		Mag, Ppr			Draft / Preliminary documents used to produce final year-end general ledger (financial database is the original); GC §60201
Finance / General Accounting	FN-014	Financial System **Database** / ERP Database	Indefinite		Indefinite		Mag			Data is interrelated; system qualifies as a "trusted system"; GC §§60201, 12168.7
Finance / General Accounting	FN-015	Fixed Assets - Auction / Disposal / Sales / Surplused	2 years	3 years	5 years		Mag, Ppr			Consistent with Accounts Receivable; Statute of limitations is 3 years; statewide guidelines propose 2 - 4 years; published articles show 3 - 6 years; GC §60201, CCP §337
Finance / General Accounting	FN-016	Fund Transfers / Wire Transfers / Adjustments	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / General Accounting	FN-017	Inventory Reports	When No Longer Required		When No Longer Required		Mag, Ppr			Preliminary drafts (the Financial Database is the original); GC §60200
Finance / General Accounting	FN-018	Investment Files	2 years	3 years	5 years	Yes: Until Maturity	Mag, Ppr			Department Preference; GC §60201

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Finance / General Accounting	FN-019	Journal Vouchers / Journal Entries	2 years	3 years	5 years		Mag, Ppr			Department Preference; Statute of Limitations is 4 years; Published articles show 6-7 years; GC §60201, CCP §337
Finance / General Accounting	FN-020	LAIF (Local Agency Investment Fund)	2 years	3 years	5 years	Yes: Until Maturity	Mag, Ppr			Department Preference; GC §60201
Finance / General Accounting	FN-021	State Reports: State Controllers Report / Local Government Compensation Report, Public Self Insurer Report (SIP Report), etc.	2 years	3 years	5 years		Mag, Ppr			District Preference; Meets auditing standards; GC §60201

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ACCOUNTS PAYABLE										
Finance / Accounts Payable	FN-022	1099's 1096's, W-9s	2 years	5 years	7 years		Mag, Ppr			IRS: 4 years after tax is due or paid (longer for auditing & contractor delinquency); Ca. FTB: 3 years; Published articles show permanent; ; IRS Reg §31.6001-1(e)(2), R&T §19530, GC §60201(d)(12)
Finance / Accounts Payable	FN-023	Accounts Payable Source Records / Invoices & Receivers / Credit Card Statements **ALL**	2 years	5 years	7 years	Yes: Until Paid	Mag, Ppr			Meets municipal government auditing standards; Sewage Sludge is required for 5 years; Published articles show 3 - 7 years; 40 CFR 122.41(j)(2); WC §13263.2(b) et seq.; GC §60201(d)(12)
Finance / Accounts Payable	FN-024	Check Copies / Cancelled Checks	2 years	5 years	7 years		Mag, Ppr			May contain independent contractor's compensation; Statute of Limitations is 4 years; Meets municipal government auditing standards; GC §60201(d)(12), CCP § 337
Finance / Accounts Payable	FN-025	Check Register	When No Longer Required		When No Longer Required		Mag, Ppr			The Financial Database is the original; Reports can be recreated on demand and are considered a copy or preliminary draft; GC §60201
Finance / Accounts Payable	FN-026	Customer Refunds & Backup	2 years	5 years	7 years		Mag, Ppr			District preference for drinking water regulations; CCP §§338 et seq., 340 et seq., 342, GC §§945.6, GC §60201

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Finance / Accounts Payable	FN-027	Petty Cash / Reconciliation / Reports / Vouchers	2 years	5 years	7 years		Mag, Ppr			District Preference (may include records pertaining to independent contractor's compensation, or expense reimbursement); Meets auditing standards; GC §60201

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ACCOUNTS RECEIVABLE / CUSTOMER SERVICE										
Finance / Accounts Receivable & Customer Service	FN-028	Bankruptcies (Where District does NOT pursue a claim)	When No Longer Required		When No Longer Required		Mag, Ppr			Department preference; GC §60201
Finance / Accounts Receivable & Customer Service	FN-029	Bankruptcies (Where District DOES pursue a claim)	10 years		10 years		Mag, Ppr			Department preference; GC §60201
Finance / Accounts Receivable & Customer Service	FN-030	Checks deposited to Bank (District scans them for the Bank, rather than physically taking the checks to the bank to deposit them.)	2 years	5 years	7 years		Mag, Ppr			These are bank instruments, and not District records; per bank agreement.
Finance / Accounts Receivable & Customer Service	FN-031	Collection Agency Assignments / Write Offs	2 years	5 years	7 years		Mag, Ppr			Department Preference (negative information remains on credit reports for 7 years); GC §60201 et seq.
Finance / Accounts Receivable & Customer Service	FN-032	Collection Agency Assignments / Write Offs	7 years		7 years		Mag, Ppr			Department Preference (negative information remains on credit reports for 7 years); GC §60201 et seq.

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(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
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Finance / Accounts Receivable & Customer Service	FN-033	Customer Correspondence, Appeals, etc. (letters from and to customers)	2 years	3 years	5 years		Mag, Ppr			Department preference (Clean Water Act actions are 5 years); GC §60201
Finance / Accounts Receivable & Customer Service	FN-034	Customer Invoices / Customer Billing **Database**	Indefinite		Indefinite	Yes	Mag, Ppr			Data Fields / Records are interrelated; GC §60201
Finance / Accounts Receivable & Customer Service	FN-035	Direct Deposits / Lock Box & Backup (Images, Stubs & Deposit Tickets)	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / Accounts Receivable & Customer Service	FN-036	Direct Payment Applications	2 years	3 years	5 years		Mag, Ppr			Meets municipal government auditing standards; Statewide guidelines propose audit + 4 years; GC §60201
Finance / Accounts Receivable & Customer Service	FN-037	Liens	10 years		10 years		Mag, Ppr			Liens are good for 10 years from recording date, and may be extended by re-recording lien; WC 36729; 37212(b),

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Finance / Accounts Receivable & Customer Service	FN-038	Payment Stubs (mailed) / Utility Receipts (when payment is made at the counter)	When No Longer Required		When No Longer Required		Mag, Ppr			Department preference; Transitory records not retained in the ordinary course of business; GC §60201
Finance / Accounts Receivable & Customer Service	FN-039	Returned Checks (NSF, etc.)	5 years		5 years	Yes: Until Paid	Mag, Ppr			Meets municipal government auditing standards; Statewide guidelines propose audit + 4 years; GC §60201

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CASH MANAGEMENT										
Finance / Cash Manag.	FN -040	Bank Deposit Receipts	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / Cash Manag.	FN -041	Bank Signature Cards	Superseded + 5 years		Superseded + 5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / Cash Manag.	FN -042	Cash Receipts	2 years	3 years	5 years		Mag, Ppr			Department Preference; Meets municipal government auditing standards; GC §60201
Finance / Cash Manag.	FN -043	Customer Deposits	2 years	3 years	5 years		Mag, Ppr			District preference for drinking water regulations; CCP §§338 et seq., 340 et seq., 342, GC §§945.6, GC §60201
PAYROLL										
Finance / Payroll	FN -044	Cancelled Payroll Checks, Including Voided copies for Automatic Deposits	2 years	5 years	7 years		Mag, Ppr			GC §60201(d)(12), CCP § 337
Finance / Payroll	FN -045	Billing: COBRA and Retiree Medical	Termination of Service	7 years	Termination of Service + 7 years	Yes: During Service	Mag, Ppr			Retained to cover auditing standards; General rule under ERISA (Employee Retirement Income Security Act) is 7 years; 29 CFR 1627.3(b)(2); 29 USC 1027; GC §60201
Finance / Payroll	FN -046	Billing: Separated Employee Loans (Educational Reimbursement, etc.)	Fully Paid	7 years	Fully Paid + 7 years	Yes: During Service	Mag, Ppr			GC §60201(d)(12)

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RECORDS RETENTION SCHEDULE: FINANCE

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Finance / Payroll	FN -047	DE-6 & 941 Forms DE-6 & 941 Forms, DE-7, DE-9 DE-43, W-3, & DE-166, IRS 5500 Forms (Employee Benefit Plans) - Quarterly Payroll Tax Returns	5 years		5 years		Mag, Ppr			Department Preference; IRS: 4 years after tax is due or paid (longer for auditing & contractor delinquency); Ca. FTB: 3 years; Published articles show permanent; ; IRS Reg §31.6001-1(e)(2), 26 CFR §1.6001-1, R&T §19530, GC §60201
Finance / Payroll	FN -048	Employee Payroll File Includes automatic payroll deposit authorizations, education loans, deductions, voluntary deductions, W-4s, etc.	Separation + 1 year	3 years	Separation + 4 years		Mag, Ppr			Department preference (W-4's are required for 4 years); FLSA requires 3 years; 29 CFR 516; GC §60201 et seq.
Finance / Payroll	FN -049	Garnishments	Fully Satisfied or Separated + 2 years		Fully Satisfied or Separated + 2 years		Mag, Ppr			Department preference; GC §60201 et seq.
Finance / Payroll	FN -050	Payroll Checks	2 years	5 years	7 years		Mag, Ppr			GC §60201(d)(12), CCP § 337
Finance / Payroll	FN -051	Payroll Registers / Payroll Reports Includes Deferred Compensation Reports, PERS reports, 401A, etc.	When No Longer Required		When No Longer Required		Mag, Ppr			Department preference (The software can accurately reproduce reports); GC §60201(d)(12)
Finance / Payroll	FN -052	PERS File Copies of PERS payments, statements, etc. Includes copies of Temporary Workers stubs & timesheets	2 years	5 years	7 years		Mag, Ppr			Department preference (Meets Municipal Government auditing Standards); GC §60201(d)(12)
Finance / Payroll	FN -053	Reports: Vacation / Sick Leave Usage	When No Longer Required		When No Longer Required		Mag, Ppr			Draft / Preliminary documents (financial database is the original); GC §60201

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
Finance / Payroll	FN -054	Timesheets / Timecards	2 years	5 years	7 years		Mag, Ppr			GC §60201(d)(12); 29 CFR 516.5 & 516.6(c); IRS Reg §31.6001-1(e)(2), R&T §19530; LC § 1174(d)
Finance / Payroll	FN -055	W-2's	2 years	5 years	7 years		Mag, OD, Mfr, Ppr	S / I	Yes: After Annual Audit	Department preference; IRS: 4 yrs after tax is due or paid; Ca. FTB: 3 years; Articles show 7 years; IRS Reg §31.6001-1(e)(2), R&T §19530; 29CFR 516.5 - 516.6, 29USC 436, GC §60201(d)(12)

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Litigation, complaints, claims, public records act requests, audits, and/or investigations suspend normal retention periods (retention resumes after settlement or completion).										
PURCHASING										
Finance / Purchasing	FN-056	Purchase Orders	When No Longer Required		When No Longer Required		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference (software can accurately re-create Purchase Order); GC §60201
Finance / Purchasing	FN-057	Vehicle Titles (Pink Slips)	Upon Sale of the Vehicle		Upon Sale of the Vehicle	Yes	Mag, Ppr			Given to the new owner upon sale of the vehicle; GC §60201 et seq.

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RECORDS RETENTION SCHEDULE: GENERAL MANAGER

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General Manager	GM-001	Projects, Programs, Subject & Issues (Issues and/or projects will vary over time)	When No Longer Required		When No Longer Required		Mag, Ppr			Department Preference; GC §60201
General Manager	GM-002	Speech Notes / PowerPoint Presentations	When No Longer Required		When No Longer Required		Mag, Ppr			Notes, drafts, or preliminary documents; GC §60201 et seq.

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RECORDS RETENTION SCHEDULE: HUMAN RESOURCES

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(OFR)			Active (in office)	Inactive (Off-site, OD or Mfr)	Total Retention	Vital?	Media Options	Image: I=Import M=Mfr S=Scan	Destroy Paper after Imaged & QC & OD'd?	
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HUMAN RESOURCES										
Human Resources	HR-001	1095-c (Employer-Provided Health Insurance Offer and Coverage)	4 years		4 years		Mag, Ppr			Department Preference; IRS: 4 years after tax is due or paid; 6 CFR 31.6001-1(e)(2) GC §60201
Human Resources	HR-002	Affirmative Action Complaints - Department of Fair Employment & Housing (DFEH) or Equal Opportunity Commission (EEOC)	Separation + 3 years		Separation + 3 years		Mag, Ppr			Department preference (same as the Personnel File); All State and Federal laws require retention until final disposition of formal complaint; State requires 2 years after action is taken; 2 CCR 11013(c); GC §§12946, 60201
Human Resources	HR-003	Applications for Employment / Recruitment Files: **Solicited (Not Hired)** (Includes Applications (Unsuccessful), Advertisements, Interview Notes, Job Brochures, Test Data, Rating Sheets, Questions, Eligibility Lists, Reference Checks, etc.)	1 year After Hiring Decision	2 years	3 years After Hiring Decision		Mag, Ppr			Department preference; EEOC / FLSA / ADEA (Age) requires 1-3 years; State Law requires 2 - 3 years; 29 CFR 1627.3(b)(i), 29 CFR 1602.14 et seq ., 2 CCR 11013(c); GC §§12946, 60201
Human Resources	HR-004	Applications for Employment, Interest Cards or Resumes: **Non-Solicited / Unsolicited / No open position (not hired)**	When No Longer Required		When No Longer Required		Mag, Ppr			No positions open; therefore not deemed part of District recruitment practices; considered a transitory record not materially impacting the conduct of the public's business; GC §60201

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Adopted:

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Human Resources	HR-005	Beneficiary Files / FSA Files (Binders) (401A, 457, PERS, FSA) Place in Official Personnel File upon Separation	Separation + 1 year	5 years	Separation + 6 years	Yes: Until Separation	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference; GC §§12946, 60201
Human Resources	HR-006	Cal-OSHA Log 200, 300, 300A, 301, etc.	5 years		5 years		Mag, Ppr			Department Preference; Calif. Labor Division is required to keep their records 7 years; OSHA requires 5 years; State law requires 2 years; ; 8 CCR §3203(b)(1), 29 CFR 1904.33, OMB 1220-0029, 8 CCR 14300.33;GC §60201 et seq.; LC §6429c
Human Resources	HR-007	Classification and Compensation Studies / Surveys / Salary Surveys	When No Longer Required		When No Longer Required		Mag, Ppr			Department Preference; GC §60201
Human Resources	HR-008	Contracts for Employees (Consultants / Contractors)	Completion	10 years	Completion + 10 years		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Also see Grants. Covers E&O Statute of Limitations (insurance certificates are filed with agreement); Published Audit Standards=4-7 years; Statute of Limitations: Contracts & Spec's=4 years, Wrongful Death=comp. + 5 years, Developers must retain their records for completion + 10 years; CCP §§336(a), 337 et. seq., GC §60201

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Human Resources	HR-009	District Benefit Contracts & Benefit Plans / Insurance Policies (Health, Dental, Deferred Compensation, Pension, etc.)	Plan Termination + 1 year	1 year	Plan Termination + 2 years		Mag, Ppr			EEOC / ADEA (Age) requires 1 year after benefit plan termination; State Law requires 2 years after action; 9 CFR 1627.3(b)(2); 29 USC 1027; 11 CCR 560; 28 CCR 1300.85.1; GC §60201
Human Resources	HR-010	DMV Pull Notices	When Superseded, or Upon Separation		When Superseded, or Upon Separation		Mag, Ppr			Department Preference; GC §§60201, 60201 et seq.
Human Resources	HR-011	Drug and Alcohol Testing / D.O.T files (ALL Files - Random, Post-Accident & Reasonable Suspicion Tests, refusals, annual summaries, etc.)	5 years		5 years		Mag, Ppr			Department preference; D.O.T. Requires 5 years for positive tests, refusals, annual summaries, etc, 1 year for negative tests; EEOC / FLSA / ADEA (Age) requires 3 years physical examinations; State Law requires 2 years; 229 CFR 1627.3(b)(1)(v), GC §§12946, 60201, 49 CFR 655.71 et seq.; 49 CFR 382.401 et seq. 49 CFR 653.71
Human Resources	HR-012	EEO-4 Reports and records required to generate EEO-4 report (Self-Identification Form, etc.)	1 year	2 years	3 years		Mag, Ppr			29 CFR 1602.30

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Human Resources	HR-013	Grievances	Separation + 1 year	5 years	Separation + 6 years		Mag, Ppr			Department Preference; EEOC/FLSA/ADEA (Age) requires 3 years for promotion, demotion, transfer, selection, or discharge; State Law requires 2 -3 years; 229 CFR 1602.31 & 1627.3(b)(1);, GC §§12946, 12960, 60201; 29 USC 1113, LC 1174
Human Resources	HR-014	I-9s	Separation + 3 years		Separation + 3 years		Mag Ppr			Non-citizens must re-certify periodically; Required for 1 year from termination or 3 years from hiring, whichever is later; EEOC / FLSA / ADEA (Age) requires 3 years for "any other forms of employment inquiry"; State Law requires 2 -3 years; 8 CFR 274a.2; 29 CFR 1627.3(b)(i); GC §§12946, 60201, 60201
Human Resources	HR-015	Illness and Injury Prevention Program	Minimum of Superseded + 2 years		Minimum of Superseded + 2 years		Mag, Ppr			Consistent with District-wide standards; GC §60201
Human Resources	HR-016	Job Descriptions	Superseded + 1 years	2 years	Superseded + 3 years	Yes: Before Superseded	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department Preference; GC §60201
Human Resources	HR-017	Loss Runs - State Fund, Workers Compensation, etc.	2 years	3 years	5 years		Mag, Ppr			Department Preference (actuary wants 10 years of data); GC §60201 et seq.

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Human Resources	HR-018	Personnel Files - **Medical File** (Includes pre-employment physicals, hazmat exposure records, pulmonary tests, Class B medicals, medical leaves, Respiratory Fit Tests, etc.)	Separation + 1 year	29 years	Separation + 30 years	Yes: Until Separation	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference; Files maintained separately; Claims can be made for 30 years for toxic substance exposure; 8 CCR §3204(d)(1) et seq., 8 CCR 5144, 29 CFR 1910.1020(d)(1)(i), GC §§12946, 60201
Human Resources	HR-019	Personnel Files - **Official Personnel file** (Includes Application, Awards, Backgrounds, Employee Action Forms, DMV Reports, Disciplinary Actions, Certifications, Commendations, Evaluations, Grievances, Licenses, Oath of Office, Policy acknowledgements, Supplemental Life Insurance, etc. - **Excludes** Medical Records)	Separation + 1 year	5 years	Separation + 6 years	Yes: Until Separation	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department Preference; statute of limitations for retirement benefits is 6 years from last action; EEOC/FLSA/ADEA (Age) requires 3 years for promotion, demotion, transfer, selection, or discharge; State Law requires 2 -3 years; 29 CFR 1602.14, 1602.31 & 1627.3(b)(ii); GC §§12946, 60201; 29 USC 1113; GC §3105
Human Resources	HR-020	Retirement Benefit Files	Termination of Benefits (includes Spouses' Benefits)	6 years	Termination of Benefits + 6 years (Includes Spouses' Benefits)	Yes: Until Separation	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department Preference; statue of limitations for retirement benefits is 6 years from last action; GC §§12946, 60201; 29 USC 1113
Water Efficiency / Safety OR Human Resources	HR-021	Training Database (Tracks what employees have received what training)	Indefinite		Indefinite		Mag, Ppr			Data Fields / Records are interrelated; GC §60201

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Water Efficiency / Safety OR Human Resources	HR-022	Training: **ALL COURSE RECORDS / SYLLABUS, AND ROSTER OF ATTENDEES**	2 years	3 years	5 years		Mag, Ppr			Department preference; Ethics Training is 5 years; Statewide guidelines propose 7 years; Calif. Labor Division is required to keep their OSHA records 7 years; EEOC/FLSA/ADEA (Age) requires 3 years for promotion, demotion, transfer, selection, or discharge; State Law requires 2 -3 years for personnel actions; 8 CCR §3203 et seq., 29 CFR 1627.3(b)(ii), LC §6429(c); GC §§12946, 60201, 53235.2(b)
Human Resources	HR-023	Worker's Compensation Claims Files	Close	Separation + 30 years or Termination of Benefits, whichever is longer	Separation + 30 years or Termination of Benefits, whichever is longer	Yes: Until Separation	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference; Claims can be made for 30 years for toxic substance exposure; 8 CCR 10102; 8 CCR 15400.2, 8 CCR §3204(d)(1) et seq., 29 CFR 1910.1020, GC §§12946, 60201. CCP §337 et seq.
RISK MANAGEMENT										
Human Resources / Risk Manage.	HR-024	Claims	Final Resolution	5 years	Final Resolution + 5 years	Yes: Until Resolution	Mag, Ppr			Department Preference; Covers various statute of limitations; CCP §§ 337 et seq.; GC §§ 911.2, 945.6, 60201(d)(4)
Human Resources / Risk Manage.	HR-025	Insurance Policies - **ALL**	Expiration + 2 years	P	P	Yes	Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department Preference; Covers various statute of limitations; CCP §§ 337 et seq.; GC §§ 911.2, 945.6, 60201(d)(4)

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RECORDS RETENTION SCHEDULE: OPERATIONS

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ADMINSTRATION										
Operations / Admin.	OP-001	Aboveground Storage Tanks (Agency Owned) Spill Prevention Control and Countermeasures (SPCC), Inspections, Integrity Testing, Maintenance, Repairs	20 years		20 years		Mag, Ppr			Department Preference; applies to both Tier I and Tier II Tanks; (Tier II tanks are required to have an integrity test every 20 years); GC §60201
Operations / Admin.	OP-002	AQMD Monitoring	5 years		5 years		Mag, Ppr			Department Preference; 40 CFR 70.6; GC §60201
Operations / Admin.	OP-003	Asbestos Disposal - Chain of Custody	2 years	P	P		Mag, Mfr, OD, Ppr	S/I	Yes: After QC'd	Department Preference; GC §60201
Operations / Admin.	OP-004	Business Plans / Hazardous Materials Inventory / Disclosures (for Local Fire Authorities / Districts)	5 years		5 years		Mag, Ppr			Department Preference (this is performed annually); GC §60201
Operations / Admin.	OP-005	Call Sheets / Standby Calls	2 years		2 years		Mag, Ppr			Department preference; GC §60201
Operations / Lead Div.	OP-006	Confined Space Entries / Hot Work Permits (Permitted entries into confined spaces such as sewers and storm drains in order to comply with regulations)	2 years		2 years		Mag, Ppr			8 CCR 5157(d)(14) & (e)(6); 29 CFR 1910.146(e)(6); GC §60201

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Operations / Admin.	OP-007	Customer Information System / Field Memos / Service Orders / Service Tracker **CMMS DATABASE** (Computerized Maintenance Management System)	Indefinite		Indefinite		Mag			Data is interrelated; GC §60201
Operations / Admin.	OP-008	Customer Information System / Field Memos / Service Orders / Service Tracker - **All Information Entered in CMMS Database**	When No Longer Required		When No Longer Required		Mag, Ppr			Preliminary drafts (the database is the original); GC §60201
Operations / Admin.	OP-009	Encroachment Permit (Road / Street Cuts)	Upon Expiration		Upon Expiration		Mag, Ppr			Issued by other agencies for our work; GC §60201
Admin. / Information Technology & Ops	OP-010	Geographic Information System (GIS)	Indefinite		Indefinite	Yes	Mag			Data is interrelated; GC §60200, 60201 et seq.
Operations / Admin.	OP-011	Hazardous Waste Manifests / Disposal (includes batteries)	5 years	P	P	Yes: Before Resolution	Mag, Mfr, OD, Ppr	S	Yes: After QC'd	Department preference (District has "cradle to grave" liability); only 3 years is mandated; 22 CCR 66262.40; GC §60201
Operations / Admin.	OP-012	Hydrant Maintenance Logs / Exercises and Flushes (prior to CMMS)	5 years		5 years		Mag, Ppr			Department Preference; GC §60201
Operations / Admin.	OP-013	Incidents / Unauthorized Discharges: Main Breaks, Spills, Investigations and Corrective Actions, Notice to Comply - **ALL**	Last Action + 5 years		Last Action + 5 years	Yes: Before Resolution	Mag, Ppr			Department Preference; Code of Federal Regulations requires 3 years; 40 CFR 122.41(j)(2) & 40 CFR 141.33(b)(2); 22 CCR §64470

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Operations / Admin.	OP-014	MSDS / SDS **Masters** (Material Safety Data Sheets / Safety Data Sheets) / Chemical Use Report Form (or records of the chemical / substance / agent, where & when it was used)	Superseded + 2 years	28 years	Superseded + 30 years		Mag, Mfr, OD, Ppr	S	Yes: When Inactive	Previous MSDS may be obtained from a service; MSDS may be destroyed as long as a record of the chemical / substance / agent, where & when it was used is maintained for 30 years; Applies to qualified employers; Claims can be made for 30 years for toxic substance exposures; 8 CCR 3204(d)(1)(B)(2 and 3), 29 CFR 910.1020(d)(1)(ii)(B), GC §60201
Operations / Admin.	OP-015	NPDES Permits	Expiration + 3 years		Expiration + 3 years	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC	Department Preference; NPDES Monitoring records required for 3 years in Federal law; 40 CFR §§122.21, 122.41
Operations / Admin.	OP-016	Permits: Hazardous Materials Storage, other regulatory permits	Expiration + 3 years		Expiration + 3 years	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC	Department Preference; GC §60201
Operations / Admin.	OP-017	Plans: IRWMP (Integrated Regional Water Management Plan), etc.	10 years		10 years		Mag, Mfr, OD, Ppr	S	Yes: After QC	Department preference; GC §60201
Operations / Admin.	OP-018	Respirator Inventory & Maintenance	2 years		2 years		Mag, Ppr			Department preference; GC §60201
Operations / Admin.	OP-019	Two-Way Radio Licensing and Information	Expiration + 2 years		Expiration + 2 years	Yes: Until Expired	Mag, Mfr, OD, Ppr	S/I	Yes: After QC'd	Covers statute of limitations for written contracts (4 years); Statewide guidelines propose Permanent; CCP § 337 et. Seq.; GC § 60201

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Operations / Admin.	OP-020	Underground Service Alerts (USA's)	3 years		3 years		Mag, Ppr			Department Preference (required for 3 years); the warrantee period for work done is usually 5 years, the Statute of Limitations for some work may be up to 10 years; CCP §337 et seq., GC §§4216.2(d) & 4216.3(d), 60201
Operations / Admin.	OP-021	Vehicle and Equipment Folders: Includes Maintenance History, Inspections, etc.	Disposal of Vehicle or Equipment + 2 years		Disposal of Vehicle or Equipment + 2 years		Mag, Ppr			Department Preference; If a motor carrier, required for 18 months after vehicle is sold; CHP requires life of vehicle; OSHA requires 1 year; 8 CCR § 3203(b)(1); 49 CFR 396.21(b)(1); 49 CFR 396.3(c); CCP §337 et. seq., 13 CCR 1234(f); GC §60201

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WATER DISTRIBUTION (DRINKING WATER / POTABLE WATER)										
Operations / Water Dist.	OP-022	Backflow Testing / Cross Connection	3 years	2 years	5 years		Mag, Ppr			Department Preference; Meets California Department of Health requirements; GC §60201; 17 CCR 7605(f)
Operations / Water Dist.	OP-023	Customer Concerns / Customer Complaints: Odor / Taste / Visual Complaints (Entered into CMMS)	5 years		5 years		Mag, Ppr			5 years is required in State and Federal law for any complaints; 40 CFR 122.41(j)(2) & 40 CFR 141.33(b); 22 CCR 64470
Operations / Water Dist.	OP-024	Daily Safety Checks / Pre-Starts / Commercial Vehicle Prestarts and Forklift Inspections	1 year		1 year		Mag, Ppr			Department preference; 13 CCR 1234(e); 49 CFR 396.11(c)(2); 49 CFR 396.21(b)(1); GC §60201
Operations / Water Dist.	OP-025	Diaries - Water Distribution (Some contain As-built drawings)	P		P		Mag, Ppr			Department preference; GC §60201
Operations / Water Dist.	OP-026	Flow Meter Reading	5 years		5 years		Mag, Ppr			Department preference; GC §60201
Operations / Water Dist.	OP-027	Generator Operation Logs (for **Fixed / Stationary generators**) / Inspections	3 years		3 years		Mag, Ppr			AQMD Rule 1470; GC §34090
Operations / Water Dist.	OP-028	Lab Reports & Chains of Custody: **Bacteriological and Organics**	5 years		5 years		Mag, Mfr, OD, Ppr	S / I	Yes - After QC & OD	Department Preference; 40 CFR 141.33(a) and (b)(1); 22 CCR §64470
Operations / Water Dist.	OP-029	Lab Reports & Chains of Custody: **Chemical** (Includes Chlorine Residuals)	10 years		10 years		Mag, Mfr, OD, Ppr	S / I	Yes - After QC & OD	Department preference; State law requires 12 years, Federal 10 years; 40 CFR 141.33(a); 22 CCR §64470
Operations / Water Dist.	OP-030	Lab Reports & Chains of Custody: **Lead & Copper**	12 years		12 years		Mag, Mfr, OD, Ppr	S / I	Yes - After QC & OD	Required for 12 years or 2 compliance cycles; 40 CFR 141.91

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Operations / Water Dist.	OP-031	Leak Reports	5 years	`	5 years		Mag, Ppr			5 years is required in State and Federal law for any complaints; 40 CFR 122.41(j)(2) & 40 CFR 141.33(b); 22 CCR 64470
Operations / Water Dist.	OP-032	Manuals: Operations & Maintenance / Project Manuals (O&M Manuals)	Upon Disposal of Equipment		Upon Disposal of Equipment	Yes: Until Superseded	Mag, Ppr			Maintain copies as long as the infrastructure is in the field (Engineering maintains originals permanently); Copies; GC §60200
Operations / Water Dist.	OP-033	Meter Calibration Records (Production Meters)	2 years	10 years	12 years		Mag, Ppr			Consistent with Lead & Copper Analysis; 40 CFR 141.33(a)
Operations / Water Dist.	OP-034	Meter Changes / Pump Meter Changes	Upon Change of Pump or Meter		Upon Change of Pump or Meter		Mag, Mfr, OD, Ppr	S/I	Yes: After QC'd	Department Preference; GC §60201
Operations / Water Dist.	OP-035	Pressure Tests	5 years		5 years		Mag, Ppr			Department preference; GC §60201
Operations / Water Dist.	OP-036	Pump Tests & Meter Tests	Upon Change of Pump or Meter		Upon Change of Pump or Meter		Mag, Ppr			Department Preference; GC §60201
Operations / Water Dist.	OP-037	SCADA Alarm & Status Printouts / Charts	When No Longer Required		When No Longer Required		Mag, Ppr			Database is original, printouts are drafts / copies. Data is interrelated; system qualifies as a "trusted system"; GC §§60200, 12168.7
Operations / Water Dist.	OP-038	SCADA Database (Supervisory Control and Data Acquisition)	Indefinite		Indefinite	Yes	Mag, Ppr			Department preference; Data is interrelated; GC §§60201

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Operations / Water Dist.	OP-039	Vulnerability Assessment	When Superseded - **Minimum 2 years**		When Superseded **Minimum 2 years**		Mag, Mfr, OD, Ppr	S / I	Yes: After QC	Confidential; GC §60201

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WATER RESOURCES										
Operations / Water Resources	OP-040	Plans: GWMP (Ground Water Management Plan), etc.	10 years		10 years		Mag, Mfr, OD, Ppr	S	Yes: After QC	Department preference; GC §60201
Operations / Water Resources	OP-041	Well Construction Files: **Permanent File** Agreements / Contracts (copies), Bid Package(Winning), Change Orders, Environmental, Final As-Built Drawings (Record Drawings), Inspection Pictures, Inspection Reports, Material Testing, Operations & Maintenance Manuals, Permits (Design, Environmental), Preliminary Design Report, Rights of Way / Easements, Soils, Geotechnical Reports, Specifications, Submittals, Surveys, CAD files, Engineer's Calculation Files	Upon Completion	P	P	Yes: Until Completed	Mag, Mfr, OD, Ppr	S/I	Yes: Complet. + 10 years	Department preference; retained for disaster preparedness purposes; Statewide guidelines propose Permanent for Infrastructure plans; GC §60201

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Operations / Water Resources	OP-042	Well Construction Files: **Administration - 10 year file** Project Administration, Bid Summary, Bonds, Certified Payroll, Grant Documents, Errors & Omissions, Insurance Certificates, Notifications, Progress Payments, Punch Lists, Videos Post-Construction & Pre-Construction, Bid Bonds (returned), Bond Copies of Drawings, Correspondence (Transitory / Preliminary Drafts), Engineer's Estimates, Memoranda, NPDES, Permits (Construction & Street Opening), Project Schedules, Requests for Information, Stop Notices - Claims, CCTV	Completion	10 years or After Funding Agency Audit, if required, whichever is longer	**Completion + 10 years** or After Funding Agency Audit, if required, whichever is longer	Yes: Until Completed	Mag, Ppr			Some grant funding agencies require audits; Statute of Limitations for Errors & Omissions is 10 years; Published Audit Standards=4-7 years; Statute of Limitations: Contracts & Spec's=4 years, Wrongful Death=comp. + 5 years, Developers=comp. + 10 years; Statewide guidelines propose termination + 5 years; CCP §337 et. seq., GC §60201
Operations / Water Resources	OP-043	Well Extraction Verifications	2 years	P	P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC	Department preference; GC §60201
Water Efficiency	OP-044	Well Water Production Reports (to State DHS / DPH & DWR)	Life of Well		Life of Well		Mag, Mfr, OD, Ppr	S/I	Yes: After QC'd	Department Preference; Meets California Department of Health requirements (3 years); GC §60201
Operations / Water Resources	OP-045	Well Water Quality Reports	5 years		5 years		Mag, Ppr			5 years is required in State and Federal law for any complaints; 40 CFR 122.41(j)(2) & 40 CFR 141.33(b); 22 CCR 64470
Water Efficiency	OP-046	Wells Depth to Water measurements, Sounding, Compiled Reports, etc.	P		P	Yes	Mag, Mfr, OD, Ppr	S	Yes: After QC	Department preference; GC §60201

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RECORDS RETENTION SCHEDULE: WATER EFFICIENCY

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WATER EFFICIENCY										
Water Efficiency	WE-001	Classes, Sign-in Sheets	2 years		2 years		Mag, Ppr			Department preference; GC §60201
Water Efficiency	WE-002	Conservation Violation Notices	3 years		3 years		Mag, Ppr			Department preference; GC §60201
Water Efficiency	WE-003	Evaluations, Surveys, & Audits (Conservation Inspection Results, Evaluations, Landscape, etc.)	5 years		5 years		Mag, Ppr			Department preference; meets municipal government auditing requirements, and may have grant funding; GC §60201
Water Efficiency	WE-004	Landscape Toilet / Turf / Washer Incentive Application & Payment Worksheet: **Denial Letters**	5 years		5 years		Mag, Ppr			Department preference; GC §60201
Water Efficiency	WE-005	Landscape / Toilet / Turf / Washer Incentive Application & **Payment Worksheet & Reimbursement**	5 years		5 years		Mag, Ppr			Department preference; GC §60201
Water Efficiency	WE-006	Meter Installation, Repair, Replacement - **CMMS DATABASE** (Computerized Maintenance Management System)	Indefinite		Indefinite		Mag			Data is interrelated; GC §60201
Water Efficiency	WE-007	Meter Installation, Repair, Replacement - **All Information Entered in CMMS Database**	When No Longer Required		When No Longer Required		Mag, Ppr			Preliminary drafts (the database is the original); GC §60201
Water Efficiency	WE-008	Meter Sheets: Installation, Notes, etc	5 years		P		Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference; GC §60201 et seq.

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Water Efficiency	WE-009	Rebate Requests: **ALL Approved** High-Efficiency Toilet Rebate, Water-Free Urinal Rebate, Clothes Washer Rebate, Hot Water Recirculation System Rebate, etc.	5 years		5 years		Mag, Mfr, OD, Ppr	S / I	Yes: After QC & OD	Department preference to meet auditing standards and MWD's requirements; GC §60201
Water Efficiency	WE-010	Reports: CUWCC (California Urban Water Conservation Council), Conservation, etc.	10 years		10 years		Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference (Commercial baseline is 10 years); GC §60201
Water Efficiency	WE-011	Studies / Technical Studies / Meter Replacement Advance Studies	5 years		P		Mag, Mfr, OD, Ppr	S	Yes: After QC & OD	Department preference; GC §60201 et seq.
Water Efficiency	WE-012	Urban Water Management Plans (UWMP)	10 years		10 years		Mag, Ppr			Department Preference (copies) GC §60201
SAFETY										
Water Efficiency / Safety	WE-013	Cal-OSHA Inspections & Citations	5 years		5 years		Mag, Ppr			Department Preference; Calif. Labor Division is required to keep their records 7 years; OSHA requires 5 years; State law requires 2 years; 8 CCR 14300.33(a); 29 CFR 1904.33, 29 CFR 1904.44; GC §60201 et seq.; LC §6429c
Water Efficiency / Safety	WE-014	Emergency Exercises / Drills / After Action Reports	When No Longer Required		When No Longer Required	Yes: Until Superseded	Mag, Ppr			Department Preference; GC §60201
Water Efficiency / Safety	WE-015	Industrial Hygiene Surveys / Sampling Plan, Data	5 years		5 years		Mag, Ppr			Department Preference (actuary wants 10 years of data); GC §60201 et seq.

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Water Efficiency / Safety	WE-016	Safety Committee / Safety Steering Committee	5 years		5 years		Mag, Ppr			Department preference; 8 CCR §3203 et seq.; GC §60201 et seq.
Water Efficiency / Safety	WE-017	Safety Inspections	5 years		5 years		Mag, Ppr			Department Preference; Calif. Labor Division is required to keep their records 7 years; OSHA requires 5 years; State law requires 2 years; 8 CCR 14300.33(a); 29 CFR 1904.33, 29 CFR 1904.44; GC §60201 et seq.; LC §6429c
Water Efficiency / Safety OR Human Resources	WE-018	Training Database (Tracks what employees have received what training)	Indefinite		Indefinite		Mag, Ppr			Data Fields / Records are interrelated; GC §60201
Water Efficiency / Safety OR Human Resources	WE-019	Training: **ALL COURSE RECORDS / SYLLABUS, AND ROSTER OF ATTENDEES**	2 years	3 years	5 years		Mag, Ppr			Department preference; Ethics Training is 5 years; Statewide guidelines propose 7 years; Calif. Labor Division is required to keep their OSHA records 7 years; EEOC/FLSA/ADEA (Age) requires 3 years for promotion, demotion, transfer, selection, or discharge; State Law requires 2 - 3 years for personnel actions; 8 CCR §3203 et seq., 29 CFR 1627.3(b)(ii), LC §6429(c); GC §§12946, 60201, 53235.2(b)

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Adopted:

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: Sunrise Well and Palm Well Rehabilitation Project
STATUS	: Action Item
REPORT DATE	: October 12, 2017
PREPARED BY	: Brian Hensley, Water Resources Supervisor

OBJECTIVE:
Consider approval of agreements for construction and engineering services and authorization of a budget amendment to allocate funds totaling $101,800.00 from the Water Supply Reserve for the Sunrise Well and Palm Well Rehabilitation Project.

BACKGROUND AND ANALYSIS:
At the August 16, 2017 Board of Directors meeting, Luhdorff & Scalmanini Consulting Engineers (LSCE) presented on the assessment of the Sunrise and Palm Groundwater Wells. The findings from LSCE's assessment found that both wells exhibit significant degradation in their groundwater production yield since the wells were installed, and need extensive rehabilitation, involving both mechanical and chemical treatment of the well louvers. Consensus direction was provided by the Board of Directors to proceed with hiring a contractor to perform the required rehabilitation work.

Engineering Services Agreement
To provide consistency from the assessment period into the well rehabilitation process, the District received a responsive proposal for engineering and field services for the Palm Well and Sunrise Well Rehabilitation Project from LSCE on a time and material basis for a Not-to-Exceed amount of $25,000.

The Scope of Services for the Project include:

- Evaluation of scale samples, with recommendations for chemical type and concentration.
- Inspection of contractor's equipment and materials for adherence to project specifications.
- Inspection of rotary brushing, placement of chemicals, swab airlifting, and pump development and testing.
- Inspection and monitoring of project discharges for environmental compliance.
- Recommendation of changes to work plan if unforeseen conditions arise.

Construction Contract
As directed by the Board, staff prepared and issued a Request for Proposals (RFP) for well rehabilitation services that were identified by LSCE as necessary. The District received a responsive bid in the amount of $66,800.00 from Well Industries, Inc. on October 4, 2017.

Budget Amendment
As noted at the August 16, 2017 Board of Directors meeting, a budget amendment transferring funds from the Water Supply Reserve to the Operating Budget is required to complete the well rehabilitations. CHWD Policy 6245 identifies the Water Supply Reserve funds for the purpose of "evaluating, designing and constructing, replacing or rehabilitating capital facilities" including groundwater production wells. $200,000 as fund balance in the Water Supply Reserve to fund this requested well rehabilitation work.

Also, in keeping with past practice, staff proposes the addition of a Project contingency fund of $10,000 to cover any unforeseen expenses that may arise during course of the well rehabilitation project.

Staff requests a Budget Amendment for the project totaling $101,800 as follows:

Description	Amount
Engineering and Field Services Agreement with LSCE	$ 25,000
Well Rehabilitation Agreement with Well Industries, Inc.	$ 66,800
Contingency Fund	$ 10,000
TOTAL	**$101,800**

RECOMMENDATION:

1) Authorize the General Manager to execute the agreement with Luhdorff & Scalmanini Consulting Engineers for a Not-to-Exceed amount of $25,000.00.
2) Approve the construction contract with Well Industries, Inc. in the amount of $66,800, and authorize the General Manager to execute the agreement.
3) Authorize a budget amendment to allocate funds totaling $101,800.00 from the Water Supply Reserve for the Sunrise Well and Palm Well Rehabilitation Project.

ATTACHMENT:

1. Agreement with Luhdorf and Scalmanini Consulting Engineers for Engineering and Field Services for the Sunrise Well and Palm Well Rehabilitation Project
2. Construction Contract with Well Industries, Inc. for the Sunrise Well and Palm Well Rehabilitation Project

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

ATTACHMENT 1

SUNRISE WELL AND PALM WELL
REHABILITATION PROJECT
Luhdorff & Scalmanini Consulting Engineers
Engineering and Field Services Contract

10/10/17

CARL M. WULFF
LUHDORFF & SCALMANINI CONSULTING ENGINEERS
500 FIRST STREET
WOODLAND, CA 95695

Letter Agreement for Engineering and Field Services for the Sunrise Well and Palm Well Rehabilitation Project

This letter shall be our Agreement ("Letter Agreement") regarding engineering and field services for the Sunrise Well and Palm Well Rehabilitation Project described below ("Services") to be provided by Luhdorff & Scalmanini Consulting Engineers ("Consultant") as an independent contractor to the Citrus Heights Water District (the " District") for the District's Sunrise Well and Palm Well Rehabilitation Project (" Project"). Consultant is retained as independent contractor and is not an employee of the District. District and Consultant are sometimes referred to herein as "Party" or "Parties".

The Services to be provided include the following: The Services to be provided are more particularly described in the Scope of Services attached hereto as Exhibit "A" and are incorporated herein by reference. Services on the Project shall begin immediately and shall be completed by November 30, 2017 unless extended by the District in writing.

Consultant shall perform all Services under this Letter Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California, and consistent with all applicable laws. Consultant represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services, including any required business license, and that such licenses and approvals shall be maintained throughout the term ofthis Letter Agreement.

Consultant has represented to the District that certain key personnel will perform and coordinate the Services under this Letter Agreement. Should one or more of such personnel become unavailable, Consultant may substitute other personnel of equal competence upon written approval of the District. In the event that the District and Consultant cannot agree as to the substitution of key personnel, the District shall be entitled to terminate this Letter Agreement for cause. The key personnel for performance of this Letter Agreement are as follows: Carl M. Wulff.

Compensation shall be based on the actual amount of time spend in adequately performing the Services and shall be billed at the hourly rate(s) described in the Consultant's rate sheet, attached hereto as Exhibit "B" and incorporated herein by reference. The total compensation shall not exceed $25,000 without written approval of the Water Resources Supervisor. Consultant's invoices shall include a detailed description of the Services performed. Invoices shall be submitted to the District on a monthly basis as performance of the Services progresses. The District shall review and pay the approved charges on such invoices in a timely manner.

Consultant is aware of the requirements of California Labor Code Section 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws. District shall provide Consultant with a copy of the prevailing rates of per diem wages in effect at the commencement of this Letter Agreement. Consultant shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Consultant's principal place of business and at the project site. Consultant shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Consultant and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Section 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Sections 1777.1).

If the Services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

Consultant shall provide proof of commercial general liability, business auto liability, and professional liability/errors and omissions insurance to the District in amounts and with policies, endorsements and conditions required by the District for the Services. The District, its officials, officers, employees, agents and authorized volunteers shall be named as Additional Insureds on Consultant's policies of commercial general liability and automobile liability insurance. If Consultant is an employer or otherwise hires one or more employees during the term of this Project, Consultant shall also provide proof of workers compensation coverage for such employees, which meets all requirements of State law, with endorsements and conditions required by the District.

The District may terminate this Letter Agreement at any time with or without cause. If the District finds it necessary to terminate this Letter Agreement without cause before Project completion, Consultant shall be entitled to be paid in full for those Services adequately completed prior to the notification of termination. Consultant may terminate this Letter Agreement only upon 30 calendar days' written notice to the District only in the event of District's failure to perform in accordance with the terms of this Letter Agreement through no fault of Consultant.

To the fullest extent permitted by law, Consultant shall defend, indemnify and hold the District, its directors, officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions of Consultant, its officials, officers, employees, subconsultants, consultants or agents in connection with the performance of the Consultant's Services, the Project or this Letter Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent Consultant's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant. Consultant's obligation to indemnify shall survive expiration or termination of this Letter Agreement, and shall not be restricted to insurance proceeds, if any, received by the District, its officials, officers, employees, agents, or volunteers.

Consultant shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Project or the Services, including all Cal/OSHA requirements; all emissions limits and permitting requirements imposed by the California Air Resources Board (CARB) or other governmental agencies; and all water quality laws, rules and regulations of the Environmental Protection Agency, the State Water Resources Control Board and the District.

By executing this Letter Agreement, Consultant verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time. Consultant shall maintain records of its compliance, including its verification of each employee, and shall make them available to the District or its representatives for inspection and copy at any time during normal business hours. The District shall not be responsible for any costs or expenses related to Consultant's compliance with the requirements. To the same extent and under the same conditions as Consultant, Consultant shall require all of its subcontractors, sub-subcontractors and consultants performing any work relating to the Project or this Letter Agreement to make the same verifications and comply with all requirements and restrictions provided herein. Consultant's failure to comply or any material misrepresentations or omissions relating thereto shall be grounds for terminating this Letter Agreement for cause.

By its signature hereunder, Consultant certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services. Finally, Consultant represents that it is an equal opportunity employer and it shall not discriminate against any subcontractor, employee or applicant for employment in violation of state or federal law. As provided for in the indemnity obligations of this Letter Agreement, Consultant shall indemnify District against any alleged violations of this paragraph, including, but not limited to, any fines or penalties imposed by any governmental agency.

This Letter Agreement shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Letter Agreement, the action shall be brought in a state or federal court situated in Sacramento County, State of California. In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, claims and/or changed conditions, Consultant must comply with the claim procedures set forth in Government Code sections 900 et seq. prior to filing any lawsuit against the District. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, claims, and/or changed conditions have been followed by Consultant. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Consultant shall be barred from bringing and maintaining a valid lawsuit against the District.

Consultant shall not assign, sublet, or transfer this Letter Agreement or any rights under or interest in this Letter Agreement without the written consent of the District, which may be withheld for any reason. This Letter Agreement may not be modified or altered except in writing signed by both parties. Except to the extent expressly provided for in the termination paragraph, there are no intended third party beneficiaries of any right or obligation of the Parties.

This is an integrated Letter Agreement representing the entire understanding of the parties as to those matters contained herein, and supersedes and cancels any prior oral or written understanding or representations with respect to matters covered hereunder. Since the Parties or their agents have participated fully in the preparation of this Letter Agreement, the language of this Letter Agreement shall be construed simply, according to its fair meaning, and not strictly for or against any Party. The captions of the various paragraphs are for convenience and ease of reference only, and do not define, limit, augment, or describe the scope, content or intent of this Letter Agreement.

Consultant warrants that the individual who has signed this Letter Agreement has the legal power, right and authority to make this Letter Agreement and bind the Consultant hereto. If you agree with the terms of this Letter Agreement, please indicate by signing and dating where indicated below.

CITRUS HEIGHTS WATER DISTRICT
Approved By:

_____
Hilary M. Straus
General Manager

Luhdorff & Scalmanini Consulting Engineers

_____
Signature

_____
Name

_____
Title

_____
Date

LUHDORFF & SCALMANINI
CONSULTING ENGINEERS

GROUNDWATER RESOURCES
HYDROLOGY · DEVELOPMENT · MANAGEMENT

August 28, 2017
LSCE 17-5-017

Mr. Brian Hensley
Water Resources Supervisor
Citrus Heights Water District
PO Box 286
Citrus Heights, CA 95611-0286

SUBJECT: ENGINEERING AND FIELD SERVICES FOR WELL REHABILITATIONS
SUNRISE AND PALM WELLS

Dear Mr. Hensley:

In response to your request, Luhdorff & Scalmanini Consulting Engineers is pleased to provide engineering and field services related to rehabilitation work on the Palm and Sunrise wells. The proposed scope and budget are detailed below.

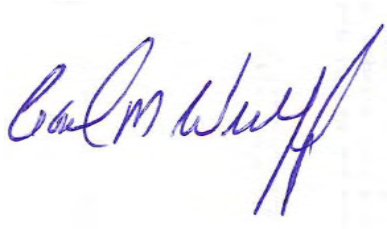
Scope
LSCE proposes to assist the District with technical oversight of key aspects of the well rehabilitations. These include:

1. Assistance with contractor selection including answering questions during the bidding process.
2. Coordination of scheduling including pre-construction meeting, if needed.
3. Evaluate scale samples and recommend final chemical type and concentration.
4. Check contractor's equipment and materials for adherence to project specifications.
5. On-site inspection to witness rotary brushing, placement of chemicals, swab airlifting, and pump development and testing.
6. Check for compliance with development discharges.
7. Recommend changes to workplan if unforeseen conditions arise.

Budget and Contract Administration
LSCE proposes to perform the work outlined above on a time and material basis for a Not-to-Exceed amount of $25,000. LSCE will bill monthly for labor and expenses in accordance with the attached Schedule of Fees for Engineering and Field services. If LSCE is directed to deviate from the proposed scope, or as caused by unforeseen field conditions, LSCE will provide notification of any potential changes in the estimated cost and time to complete the work. LSCE will not proceed with any work that deviates from the approved scope and budget until approval to proceed is granted by the District.

Should you have any questions or require additional information, we will be pleased to respond.

Sincerely,
Luhdorff and Scalmanini
Consulting Engineers



Carl M. Wulff
Project Manager



LUHDORFF & SCALMANINI
CONSULTING ENGINEERS
500 FIRST STREET WOODLAND, CALIFORNIA 95695

SCHEDULE OF FEES - ENGINEERING AND FIELD SERVICES
2017

Professional:*	
Senior Principal	*$202/hr.*
Principal Professional	*$200/hr.*
Project Manager	*$190/hr.*
Senior Professional	*$178/hr.*
Project Professional	*$135 to 170/hr.*
Staff Professional	*$115 to 130/hr.*
Technical:	
Engineering Inspector	*$115 to 130/hr.*
ACAD Drafting/GIS	*$120 to 130/hr.*
Engineering/Scientist Assistant	*$100/hr.*
Technician	*$100/hr.*
Clerical Support:	
Word Processing, Clerical	*$70/hr.*
**********	
Vehicle Use	*$0.55/mi.*
Subsistence	*Cost Plus 15%*
Groundwater Sampling Equipment (Includes Operator)	*$170.00/hr.*
Copies	*.20 ea.*
**********	
Professional or Technical Testimony	*200% of Regular Rates*
Requested Technical Overtime	*150% of Regular Rates*
Outside Services/Rentals	*Cost Plus 15%*
Services by Associate Firms	*Cost Plus 15%*

* *Engineer, Geologist, Hydrogeologist, and Hydrologist*

ATTACHMENT 2

SUNRISE WELL AND PALM WELL
REHABILITATION PROJECT

Well Industries, Inc. Contract

CITRUS HEIGHTS WATER DISTRICT

CONSTRUCTION CONTRACT

SUNRISE WELL AND PALM WELL REHABILITATION PROJECT

1. PARTIES AND DATE.

This Contract is made and entered into this _____day of October, 2017 by and between Citrus Heights Water District, an irrigation district organized and operating under the laws of the State of California ("District") and Well Industries Inc., a _____with its principal place of business at 3282 Hwy 32, Chico, CA 95973 ("Contractor"). District and Contractor are sometimes individually referred to as "Party" and collectively as "Parties" in this Contract.

2. RECITALS.

2.1 District. District is a public agency organized under the laws of the State of California, with power to contract for services necessary to achieve its purpose.

2.2 Contractor. Contractor desires to perform and assume responsibility for the provision of certain construction services required by the District on the terms and conditions set forth in this Contract. Contractor represents that it is duly licensed and experienced in providing groundwater well rehabilitation related construction services to public clients, that it and its employees or subcontractors have all necessary licenses and permits to perform the services in the State of California, and that it is familiar with the plans of District. The following license classifications are required for this Project: California C-57 Drilling Contractor

2.3 Project. District desires to engage Contractor to render such services for the Sunrise Well and Palm Well Rehabilitation Project ("Project") as set forth in this Contract.

2.4 Project Documents & Certifications. Contractor has obtained, and delivers concurrently herewith, a performance bond, a payment bond, and all insurance documentation, as required by the Contract.30

3. TERMS

3.1 Incorporation of Documents. This Contract includes and hereby incorporates in full by reference the following documents, including all exhibits, drawings, specifications and documents therein, and attachments and addenda thereto:

- Plans and Specifications (Exhibit "A")
- Special Conditions (Exhibit "B")
- Contractor's Certificate Regarding Workers' Compensation (Exhibit "C")
- Public Works Contractor Registration Certification (Exhibit "D")
- Payment and Performance Bonds (Exhibit "E")

- Addenda
- Change Orders executed by the District
- Seventeenth Edition of the Standard Specifications for Public Works Construction (The Greenbook), Excluding Sections 1-9
- Notice Inviting Bids, if any
- Instructions to Bidders, if any
- Contractor's Bid

3.2 Contractor's Basic Obligation; Scope of Work. Contractor promises and agrees, at its own cost and expense, to furnish to the District all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately complete the Project, including all structures and facilities necessary for the Project or described in the Contract (hereinafter sometimes referred to as the "Work"), for a Total Contract Price as specified pursuant to this Contract. All Work shall be subject to, and performed in accordance with the above referenced documents, as well as the exhibits attached hereto and incorporated herein by reference. The plans and specifications for the Work are further described in Exhibit "A" attached hereto and incorporated herein by this reference. Special Conditions, if any, relating to the Work are described in Exhibit "B" attached hereto and incorporated herein by this reference.

3.2.1 Change in Scope of Work. Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition or deletion is approved in writing by a valid change order executed by the District. Should Contractor request a change order due to unforeseen circumstances affecting the performance of the Work, such request shall be made within five (5) business days of the date such circumstances are discovered or shall waive its right to request a change order due to such circumstances. If the Parties cannot agree on any change in price required by such change in the Work, the District may direct the Contractor to proceed with the performance of the change on a time and materials basis.

3.2.2 Substitutions/"Or Equal". Pursuant to Public Contract Code Section 3400(b), the District may make a finding that designates certain products, things, or services by specific brand or trade name. Unless specifically designated in this Contract, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words "or equal."

Contractor may, unless otherwise stated, offer for substitution any material, process or article which shall be substantially equal or better in every respect to that so indicated or specified in this Contract. However, the District may have adopted certain uniform standards for certain materials, processes and articles. Contractor shall submit requests, together with substantiating data, for substitution of any "or equal" material, process or article no later than thirty-five (35) days after award of the Contract. To facilitate the construction schedule and sequencing, some requests may need to be submitted before thirty-five (35) days after award of Contract. Provisions regarding submission of "or equal" requests shall not in any way authorize an extension of time for performance of this Contract. If a proposed "or equal" substitution request

is rejected, Contractor shall be responsible for providing the specified material, process or article. The burden of proof as to the equality of any material, process or article shall rest with Contractor.

The District has the complete and sole discretion to determine if a material, process or article is an "or equal" material, process or article that may be substituted. Data required to substantiate requests for substitutions of an "or equal" material, process or article data shall include a signed affidavit from Contractor stating that, and describing how, the substituted "or equal" material, process or article is equivalent to that specified in every way except as listed on the affidavit. Substantiating data shall include any and all illustrations, specifications, and other relevant data including catalog information which describes the requested substituted "or equal" material, process or article, and substantiates that it is an "or equal" to the material, process or article. The substantiating data must also include information regarding the durability and lifecycle cost of the requested substituted "or equal" material, process or article. Failure to submit all the required substantiating data, including the signed affidavit, to the District in a timely fashion will result in the rejection of the proposed substitution.

Contractor shall bear all of the District's costs associated with the review of substitution requests. Contractor shall be responsible for all costs related to a substituted "or equal" material, process or article. Contractor is directed to the Special Conditions (if any) to review any findings made pursuant to Public Contract Code section 3400.

3.3 Period of Performance and Liquidated Damages. Contractor shall perform and complete all Work under this Contract within 60 working days, beginning the effective date of the Notice to Proceed ("Contract Time"). Contractor shall perform its Work in strict accordance with any completion schedule, construction schedule or project milestones developed by the District. Such schedules or milestones may be included as part of Exhibits "A" or "B" attached hereto, or may be provided separately in writing to Contractor. Contractor agrees that if such Work is not completed within the aforementioned Contract Time and/or pursuant to any such completion schedule, construction schedule or project milestones developed pursuant to provisions of the Contract, it is understood, acknowledged and agreed that the District will suffer damage. Pursuant to Government Code Section 53069.85, Contractor shall pay to the District as fixed and liquidated damages the sum of two hundred dollars ($200.00) per day for each and every calendar day of delay beyond the Contract Time or beyond any completion schedule, construction schedule or Project milestones established pursuant to the Contract.

3.4 Standard of Performance; Performance of Employees. Contractor shall perform all Work under this Contract in a skillful and workmanlike manner, and consistent with the standards generally recognized as being employed by professionals in the same discipline in the State of California. Contractor represents and maintains that it is skilled in the professional calling necessary to perform the Work. Contractor warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Work assigned to them. Finally, Contractor represents that it, its employees and subcontractors have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Work, including a District business license, and that such licenses and approvals shall be maintained throughout the term of this Contract. As provided for in the indemnification provisions of this Contract, Contractor shall perform, at its own cost and expense and without reimbursement from the District, any work necessary to correct errors or omissions which are caused by Contractor's failure to comply with

the standard of care provided for herein. Any employee who is determined by the District to be uncooperative, incompetent, a threat to the safety of persons or the Work, or any employee who fails or refuses to perform the Work in a manner acceptable to the District, shall be promptly removed from the Project by Contractor and shall not be re-employed on the Work.

3.5 Control and Payment of Subordinates; Contractual Relationship. District retains Contractor on an independent contractor basis and Contractor is not an employee of District. Any additional personnel performing the work governed by this Contract on behalf of Contractor shall at all times be under Contractor's exclusive direction and control. Contractor shall pay all wages, salaries, and other amounts due such personnel in connection with their performance under this Contract and as required by law. Contractor shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, and workers' compensation insurance.

3.6 District's Basic Obligation. District agrees to engage and does hereby engage Contractor as an independent contractor to furnish all materials and to perform all Work according to the terms and conditions herein contained for the sum set forth above. Except as otherwise provided in the Contract, the District shall pay to Contractor, as full consideration for the satisfactory performance by Contractor of the services and obligations required by this Contract, the below-referenced compensation in accordance with compensation provisions set forth in the Contract.

3.7 Compensation and Payment.

3.7.1 Amount of Compensation. As consideration for performance of the Work required herein, District agrees to pay Contractor the Total Contract Price of Sixty-Six Thousand, Eight Hundred Dollars ($66,800.00) ("Total Contract Price") provided that such amount shall be subject to adjustment pursuant to the applicable terms of this Contract or written change orders approved and signed in advance by the District.

3.7.2 Payment of Compensation. If the Work is scheduled for completion in sixty (30) or less calendar days, District will arrange for payment of the Total Contract Price upon completion and approval by District of the Work. If the Work is scheduled for completion in more than sixty (60) calendar days, District will pay Contractor on a monthly basis as provided for herein. On or before the first (1st) day of each month, Contractor shall submit to the District an itemized application for payment in the format supplied by the District indicating the amount of Work completed since commencement of the Work or since the last progress payment. These applications shall be supported by evidence which is required by this Contract and such other documentation as the District may require. The Contractor shall certify that the Work for which payment is requested has been done and that the materials listed are stored where indicated. Contractor may be required to furnish a detailed schedule of values upon request of the District and in such detail and form as the District shall request, showing the quantities, unit prices, overhead, profit, and all other expenses involved in order to provide a basis for determining the amount of progress payments.

3.7.3 Prompt Payment. District shall review and pay all progress payment requests in accordance with the provisions set forth in Section 20104.50 of the California Public Contract Code. However, no progress payments will be made for Work not completed in

accordance with this Contract. Contractor shall comply with all applicable laws, rules and regulations relating to the proper payment of its employees, subcontractors, suppliers or others.

3.7.4 Contract Retentions. From each approved progress estimate, five percent (5%) will be deducted and retained by the District, and the remainder will be paid to Contractor. All Contract retention shall be released and paid to Contractor and subcontractors pursuant to California Public Contract Code Section 7107.

3.7.5 Other Retentions. In addition to Contract retentions, the District may deduct from each progress payment an amount necessary to protect District from loss because of: (1) liquidated damages which have accrued as of the date of the application for payment; (2) any sums expended by the District in performing any of Contractor's obligations under the Contract which Contractor has failed to perform or has performed inadequately; (3) defective Work not remedied; (4) stop notices as allowed by state law; (5) reasonable doubt that the Work can be completed for the unpaid balance of the Total Contract Price or within the scheduled completion date; (6) unsatisfactory prosecution of the Work by Contractor; (7) unauthorized deviations from the Contract; (8) failure of Contractor to maintain or submit on a timely basis proper and sufficient documentation as required by the Contract or by District during the prosecution of the Work; (9) erroneous or false estimates by Contractor of the value of the Work performed; (10) any sums representing expenses, losses, or damages as determined by the District, incurred by the District for which Contractor is liable under the Contract; and (11) any other sums which the District is entitled to recover from Contractor under the terms of the Contract or pursuant to state law, including Section 1727 of the California Labor Code. The failure by the District to deduct any of these sums from a progress payment shall not constitute a waiver of the District's right to such sums.

3.7.6 Substitutions for Contract Retentions. In accordance with California Public Contract Code Section 22300, the District will permit the substitution of securities for any monies withheld by the District to ensure performance under the Contract. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the District, or with a state or federally chartered bank in California as the escrow agent, and thereafter the District shall then pay such monies to Contractor as they come due. Upon satisfactory completion of the Contract, the securities shall be returned to Contractor. For purposes of this Section and Section 22300 of the Public Contract Code, the term "satisfactory completion of the contract" shall mean the time the District has issued written final acceptance of the Work and filed a Notice of Completion as required by law and provisions of this Contract. Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon. The escrow agreement used for the purposes of this Section shall be in the form provided by the District.

3.7.7 Title to Work. As security for partial, progress, or other payments, title to Work for which such payments are made shall pass to the District at the time of payment. To the extent that title has not previously been vested in the District by reason of payments, full title shall pass to the District at delivery of the Work at the destination and time specified in this Contract. Such transferred title shall in each case be good, free and clear from any and all security interests, liens, or other encumbrances. Contractor promises and agrees that it will not pledge, hypothecate, or otherwise encumber the items in any manner that would result in any lien, security interest,

charge, or claim upon or against said items. Such transfer of title shall not imply acceptance by the District, nor relieve Contractor from the responsibility to strictly comply with the Contract, and shall not relieve Contractor of responsibility for any loss of or damage to items.

3.7.8 Labor and Material Releases. Contractor shall furnish District with labor and material releases from all subcontractors performing work on, or furnishing materials for, the Work governed by this Contract prior to final payment by District.

3.7.9 Prevailing Wages. Contractor is aware of the requirements of California Labor Code Section 1720 et seq., and 1770 et seq., as well as California Code of Regulations, Title 8, Section 16000 et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on "public works" and "maintenance" projects. Since the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and since the total compensation is $1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. District shall provide Contractor with a copy of the prevailing rates of per diem wages in effect at the commencement of this Contract. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at Contractor's principal place of business and at the project site. Contractor shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claim or liability arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. Contractor and any subcontractor shall forfeit a penalty of up to $200 per calendar day or portion thereof for each worker paid less than the prevailing wage rates.

3.7.10 Apprenticeable Crafts. When Contractor employs workmen in an apprenticeable craft or trade, Contractor shall comply with the provisions of Section 1777.5 of the California Labor Code with respect to the employment of properly registered apprentices upon public works. The primary responsibility for compliance with said section for all apprenticeable occupations shall be with Contractor. The Contractor or any subcontractor that is determined by the Labor Commissioner to have knowingly violated Section 1777.5 shall forfeit as a civil penalty an amount not exceeding $100 for each full calendar day of noncompliance, or such greater amount as provided by law.

3.7.11 Hours of Work. Contractor is advised that eight (8) hours labor constitutes a legal day's work. Pursuant to Section 1813 of the California Labor Code, Contractor shall forfeit a penalty of $25.00 per worker for each day that each worker is permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week, except when payment for overtime is made at not less than one and one-half (1-1/2) times the basic rate for that worker.

3.7.12 Payroll Records. Contractor and each subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of Contractor in the manner provided in Labor Code section

1776. In the event of noncompliance with the requirements of this section, Contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor must comply with this section. Should noncompliance still be evident after such 10-day period, Contractor shall, as a penalty to District, forfeit not more than $100.00 for each calendar day or portion thereof, for each worker, until strict compliance is effectuated. The amount of the forfeiture is to be determined by the Labor Commissioner. A contractor who is found to have violated the provisions of law regarding wages on Public Works with the intent to defraud shall be ineligible to bid on Public Works contracts for a period of one to three years as determined by the Labor Commissioner. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due. The responsibility for compliance with this section is on Contractor.

3.7.13 Contractor and Subcontractor Registration. Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. Contractor is directed to review, fill out and execute the Public Works Contractor Registration Certification attached hereto as Exhibit "E" prior to contract execution.

3.7.14 Labor Compliance. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be the Contractor's sole responsibility to evaluate and pay the cost of complying with all labor compliance requirements under this Contract and applicable law.

3.8 Performance of Work; Jobsite Obligations.

3.8.1 Water Quality Management and Compliance.

3.8.1.1 Water Quality Management and Compliance. Contractor shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Work including, without limitation, all applicable provisions of the Federal Water Pollution Control Act (33 U.S.C. §§ 1300); the California Porter-Cologne Water Quality Control Act (Cal Water Code §§ 13000-14950); local ordinances regulating discharges of storm water; and any and all regulations, policies, or permits issued pursuant to any such authority regulating the discharge of pollutants, as that term is used in the Porter-Cologne Water Quality Control Act, to any ground or surface water in the State.

3.8.1.2 Compliance with the Statewide Construction General Permit. Contractor shall comply with all conditions of the most recent iteration of the National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity, issued by the California State Water Resources Control Board ("Permit"). It shall be Contractor's sole responsibility to file a Notice of Intent and procure coverage under the Permit for all construction activity which results in the disturbance of more than one acre of total land area or which is part of a larger common area of development or sale.

Prior to initiating work, Contractor shall be solely responsible for preparing and implementing a Storm Water Pollution Prevention Plan (SWPPP) as required by the Permit. Contractor shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, and monitoring and reporting requirements as required by the Permit. The Permit requires the SWPPP to be a "living document" that changes as necessary to meet the conditions and requirements of the job site as it progresses through difference phases of construction and is subject to different weather conditions. It shall be Contractor's sole responsibility to update the SWPPP as necessary to address conditions at the project site.

3.8.1.3 Other Water Quality Rules Regulations and Policies. Contractor shall comply with the lawful requirements of any applicable municipality, drainage District, or local agency regarding discharges of storm water to separate storm drain systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs.

3.8.1.4 Cost of Compliance. Storm, surface, nuisance, or other waters may be encountered at various times during construction of The Work. Therefore, the Contractor, by submitting a Bid, hereby acknowledges that it has investigated the risk arising from such waters, has prepared its Bid accordingly, and assumes any and all risks and liabilities arising therefrom.

3.8.1.5 Liability for Non-Compliance. Failure to comply with the Permit is a violation of federal and state law. Pursuant to the indemnification provisions of this Contract, Contractor hereby agrees to defend, indemnify and hold harmless the District and its officials, officers, employees, volunteers and agents for any alleged violations. In addition, District may seek damages from Contractor for any delay in completing the Work in accordance with the Contract, if such delay is caused by or related to Contractor's failure to comply with the Permit.

3.8.1.6 Reservation of Right to Defend. District reserves the right to defend any enforcement action brought against the District for Contractor's failure to comply with the Permit or any other relevant water quality law, regulation, or policy. Pursuant to the indemnification provisions of this Contract, Contractor hereby agrees to be bound by, and to reimburse the District for the costs (including the District's attorney's fees) associated with, any settlement reached between the District and the relevant enforcement entity.

3.8.1.7 Training. In addition to the standard of performance requirements set forth in paragraph 3.4, Contractor warrants that all employees and subcontractors shall have sufficient skill and experience to perform the Work assigned to them without impacting water quality in violation of the laws, regulations and policies described in paragraph 3.8.1. Consultant further warrants that it, its employees and subcontractors will receive adequate training, as determined by District, regarding the requirements of the laws, regulations and policies described in paragraph 3.8.1 as they may relate to the Work provided under this Agreement. Upon request, District will provide the Contractor with a list of training programs that meet the requirements of this paragraph.

3.8.2 Safety. Contractor shall execute and maintain its work so as to avoid injury or damage to any person or property. Contractor shall comply with the requirements of the

specifications relating to safety measures applicable in particular operations or kinds of work. In carrying out its Work, Contractor shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of employees appropriate to the nature of the Work and the conditions under which the Work is to be performed. Safety precautions as applicable shall include, but shall not be limited to, adequate life protection and lifesaving equipment; adequate illumination for underground and night operations; instructions in accident prevention for all employees, such as machinery guards, safe walkways, scaffolds, ladders, bridges, gang planks, confined space procedures, trenching and shoring, fall protection and other safety devices, equipment and wearing apparel as are necessary or lawfully required to prevent accidents or injuries; and adequate facilities for the proper inspection and maintenance of all safety measures. Furthermore, Contractor shall prominently display the names and telephone numbers of at least two medical doctors practicing in the vicinity of the Project, as well as the telephone number of the local ambulance service, adjacent to all telephones at the Project site.

3.8.3 Laws and Regulations. Contractor shall keep itself fully informed of and in compliance with all local, state and federal laws, rules and regulations in any manner affecting the performance of the Contract or the Work, including all Cal/OSHA requirements, and shall give all notices required by law. Contractor shall be liable for all violations of such laws and regulations in connection with Work. If Contractor observes that the drawings or specifications are at variance with any law, rule or regulation, it shall promptly notify the District in writing. Any necessary changes shall be made by written change order. If Contractor performs any work knowing it to be contrary to such laws, rules and regulations and without giving written notice to the District, Contractor shall be solely responsible for all costs arising therefrom. District is a public entity of the State of California subject to certain provisions of the Health & Safety Code, Government Code, Public Contract Code, and Labor Code of the State. It is stipulated and agreed that all provisions of the law applicable to the public contracts of a municipality are a part of this Contract to the same extent as though set forth herein and will be complied with. Contractor shall defend, indemnify and hold District, its officials, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Contract, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.8.4 Permits and Licenses. Contractor shall be responsible for securing District permits and licenses necessary to perform the Work described herein, including, but not limited to, a county or city business license. While Contractor will not be charged a fee for any District permits, Contractor shall pay the District's applicable business license fee. Any ineligible contractor or subcontractor pursuant to Labor Code Sections 1777.1 and 1777.7 may not perform work on this Project.

3.8.5 Trenching Work. If the Total Contract Price exceeds $25,000 and if the Work governed by this Contract entails excavation of any trench or trenches five (5) feet or more in depth, Contractor shall comply with all applicable provisions of the California Labor Code, including Section 6705. To this end, Contractor shall submit for District's review and approval a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

3.8.6 Hazardous Materials and Differing Conditions. As required by California Public Contract Code Section 7104, if this Contract involves digging trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall promptly, and prior to disturbance of any conditions, notify District of: (1) any material discovered in excavation that Contractor believes to be a hazardous waste that is required to be removed to a Class I, Class II or Class III disposal site; (2) subsurface or latent physical conditions at the site differing from those indicated by District; and (3) unknown physical conditions of an unusual nature at the site, significantly different from those ordinarily encountered in such contract work. Upon notification, District shall promptly investigate the conditions to determine whether a change order is appropriate. In the event of a dispute, Contractor shall not be excused from any scheduled completion date and shall proceed with all Work to be performed under the Contract, but shall retain all rights provided by the Contract or by law for making protests and resolving the dispute.

3.8.7 Underground Utility Facilities. To the extent required by Section 4215 of the California Government Code, District shall compensate Contractor for the costs of: (1) locating and repairing damage to underground utility facilities not caused by the failure of Contractor to exercise reasonable care; (2) removing or relocating underground utility facilities not indicated in the construction drawings; and (3) equipment necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay caused by failure of District to provide for removal or relocation of such utility facilities.

3.8.8 Air Quality. Contractor must fully comply with all applicable laws, rules and regulations in furnishing or using equipment and/or providing services, including, but not limited to, emissions limits and permitting requirements imposed by the California Air Resources Board (CARB). Although CARB limits and requirements are more broad, Contractor shall specifically be aware of their application to "portable equipment", which definition is considered by CARB to include any item of equipment with a fuel-powered engine. Contractor shall indemnify District against any fines or penalties imposed by CARB, or any other governmental or regulatory agency for violations of applicable laws, rules and/or regulations by Contractor, its subcontractors, or others for whom Contractor is responsible under its indemnity obligations provided for in this Agreement.

3.8.9 State Recycling Mandates. Contractor shall comply with State Recycling Mandates. Any recyclable materials/debris collected by the contractor that can be feasibly diverted via reuse or recycling must be hauled by the appropriate handler for reuse or recycling.

3.9 Completion of Work. When Contractor determines that it has completed the Work required herein, Contractor shall so notify District in writing and shall furnish all labor and material releases required by this Contract. District shall thereupon inspect the Work. If the Work is not acceptable to the District, the District shall indicate to Contractor in writing the specific portions or items of Work which are unsatisfactory or incomplete. Once Contractor determines that it has completed the incomplete or unsatisfactory Work, Contractor may request a reinspection by the District. Once the Work is acceptable to District, District shall pay to Contractor the Total Contract Price remaining to be paid, less any amount which District may be authorized or directed by law to retain. Payment of retention proceeds due to Contractor shall be made in accordance with Section 7107 of the California Public Contract Code.

3.10 Claims; Government Code Claim Compliance.

3.10.1 Resolution of Claims. Notwithstanding any other provision herein, all claims shall be resolved pursuant to the claims resolution process set forth in Public Contract Code Section 9204. Furthermore, the resolution of claims of $375,000 or less shall also comply with the claims resolution procedures set forth in California Public Contract Code §§ 20104, et seq.

3.10.2 Third Party Claims. Pursuant to Public Contract Code Section 9201, the District shall provide Contractor with timely notification of the receipt of any third-party claim, relating to the Contract. The District is entitled to recover its reasonable costs incurred in providing such notification.

3.10.3 Government Code Claims. In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, claims and/or changed conditions, Contractor must comply with the claim procedures set forth in Government Code sections 900 et seq. prior to filing any lawsuit against the District. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, claims, and/or changed conditions have been followed by Contractor. If no such Government Code claim is submitted, or if any prerequisite contractual requirements are not otherwise satisfied as specified herein, Contractor shall be barred from bringing and maintaining a valid lawsuit against the District.

3.11 Loss and Damage. Except as may otherwise be limited by law, Contractor shall be responsible for all loss and damage which may arise out of the nature of the Work agreed to herein, or from the action of the elements, or from any unforeseen difficulties which may arise or be encountered in the prosecution of the Work until the same is fully completed and accepted by District. In the event of damage proximately caused by an Act of God, as defined by Section 7105 of the Public Contract Code, the District may terminate this Contract pursuant to Section 3.17.3; provided, however, that the District needs to provide Contractor with only one (1) day advanced written notice.

3.12 Indemnification.

3.12.1 Scope of Indemnity**.** To the fullest extent permitted by law, Contractor shall defend, indemnify and hold the District, its officials, employees, agents and authorized volunteers free and harmless from any and all claims, demands, causes of action, suits, actions, proceedings, costs, expenses, liability, judgments, awards, decrees, settlements, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, (collectively, "Claims") in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Contractor, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Contractor's services, the Project or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent required by Civil Code section 2782, Contractor's indemnity obligation shall not apply to liability for damages for death or bodily injury to persons, injury to property, or any other loss, damage or expense arising from the sole or active negligence or willful misconduct of the District or the District's agents, servants, or independent

contractors who are directly responsible to the District, or for defects in design furnished by those persons.

3.12.2 Additional Indemnity Obligations**.** Contractor shall defend, with counsel of District's choosing and at Contractor's own cost, expense and risk, any and all Claims covered by this section that may be brought or instituted against District or its officials, employees, agents and authorized volunteers. In addition, Contractor shall pay and satisfy any judgment, award or decree that may be rendered against District or its officials, employees, agents and authorized volunteers as part of any such claim, suit, action or other proceeding. Contractor shall also reimburse District for the cost of any settlement paid by District or its officials, employees, agents and authorized volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for District's attorney's fees and costs, including expert witness fees. Contractor shall reimburse District and its officials, employees, agents and authorized volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Contractor's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the District, its officials, employees, agents and authorized volunteers.

3.13 Insurance.

3.13.1 Time for Compliance. Contractor shall not commence Work under this Contract until it has provided evidence satisfactory to the District that it has secured all insurance required under this section. In addition, Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the District that the subcontractor has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for the District to terminate this Contract for cause.

3.13.2 Minimum Requirements. Contractor shall, at its expense, procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by Contractor, its agents, representatives, employees or subcontractors. Contractor shall also require all of its subcontractors to procure and maintain the same insurance for the duration of the Contract. Such insurance shall meet at least the following minimum levels of coverage:

3.13.2.1 Minimum Scope of Insurance. Coverage shall be at least as broad as the latest version of the following: (1) *General Liability:* Insurance Services Office Commercial General Liability coverage (occurrence form CG 00 01) OR Insurance Services Office Owners and Contractors Protective Liability Coverage Form (CG 00 09 11 88) (coverage for operations of designated contractor); (2) *Automobile Liability:* Insurance Services Office Business Auto Coverage form number CA 00 01, code 1 (any auto); and (3) *Workers' Compensation and Employer's Liability:* Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance. Policies shall not contain exclusions contrary to this Contract.

3.13.2.2 Minimum Limits of Insurance. Contractor shall maintain limits no less than: (1) *General Liability:* $2,000,000 per occurrence and $4,000,000 aggregate for bodily injury, personal injury and property damage; (2) *Automobile Liability:* $2,000,000 per accident for bodily injury and property damage; and (3) *Workers' Compensation and Employer's*

Liability: Workers' compensation limits as required by the Labor Code of the State of California. Employer's Liability limits of $1,000,000 each accident, policy limit bodily injury or disease, and each employee bodily injury or disease. Defense costs shall be available in addition to the limits. Notwithstanding the minimum limits specified herein, any available coverage shall be provided to the parties required to be named as additional insureds pursuant to this Contract.

3.13.3 Insurance Endorsements. The insurance policies shall contain the following provisions, or Contractor shall provide endorsements (amendments) on forms supplied or approved by the District to add the following provisions to the insurance policies:

3.13.3.1 General Liability. (1) Such policy shall give the District, its officials, employees, agents and authorized volunteers additional insured status using ISO endorsements CG20 10 10 01 plus CG20 37 10 01, or endorsements providing the exact same coverage, with respect to the Work or operations performed by or on behalf of Contractor, including materials, parts or equipment furnished in connection with such work; (2) all policies shall waive or shall permit Contractor to waive all rights of subrogation which may be obtained by the Contractor or any insurer by virtue of payment of any loss or any coverage provided to any person named as an additional insured pursuant to this Contract, and Contractor agrees to waive all such rights of subrogation; and (3) the insurance coverage shall be primary insurance as respects the District, its officials, employees, agents and authorized volunteers, or if excess, shall stand in an unbroken chain of coverage excess of Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its officials, employees, agents and authorized volunteers shall be excess of Contractor's insurance and shall not be called upon to contribute with it.

3.13.3.2 Automobile Liability. (1) Such policy shall give the District, its officials, employees, agents and authorized volunteers additional insured status with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by Contractor or for which Contractor is responsible; (2) all policies shall waive or shall permit Contractor to waive all rights of subrogation which may be obtained by the Contractor or any insurer by virtue of payment of any loss or any coverage provided to any person named as an additional insured pursuant to this Contract, and Contractor agrees to waive all such rights of subrogation; and (3) the insurance coverage shall be primary insurance as respects the District, its officials, employees, agents and authorized volunteers, or if excess, shall stand in an unbroken chain of coverage excess of Contractor's scheduled underlying coverage. Any insurance or self-insurance maintained by the District, its officials, employees, agents and authorized volunteers shall be excess of Contractor's insurance and shall not be called upon to contribute with it in any way.

3.13.3.3 Workers' Compensation and Employer's Liability Coverage. The insurer shall agree to waive all rights of subrogation against the District, its officials, employees, agents and authorized volunteers for losses paid under the terms of the insurance policy which arise from work performed by Contractor.

3.13.3.4 All Coverages. Each insurance policy required by this Contract shall be endorsed to state that: (1) coverage shall not be suspended, voided, reduced or canceled except after thirty (30) days prior written notice by certified mail, return receipt requested,

has been given to the District; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the District, its officials, employees, agents and authorized volunteers.

3.13.4 Separation of Insureds; No Special Limitations. All insurance required by this Section shall contain standard separation of insureds provisions. In addition, such insurance shall not contain any special limitations on the scope of protection afforded to the District, its officials, employees, agents and authorized volunteers.

3.13.5 Deductibles and Self-Insurance Retentions. Any deductibles or self-insured retentions must be declared to and approved by the District. Contractor shall guarantee that, at the option of the District, either: (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officials, employees, agents and authorized volunteers; or (2) the Contractor shall procure a bond or other financial guarantee acceptable to the District guaranteeing payment of losses and related investigation costs, claims and administrative and defense expenses.

3.13.6 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating no less than A:VII, licensed to do business in California, and satisfactory to the District. Exception may be made for the State Compensation Insurance Fund when not specifically rated.

3.13.7 Verification of Coverage. Contractor shall furnish District with original certificates of insurance and endorsements effecting coverage required by this Contract on forms satisfactory to the District. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms supplied or approved by the District. All certificates and endorsements must be received and approved by the District before work commences. The District reserves the right to require complete, certified copies of all required insurance policies, at any time.

3.13.8 Subcontractors. All subcontractors shall meet the requirements of this Section before commencing Work. Contractor shall furnish separate certificates and endorsements for each subcontractor. Subcontractor policies of General Liability insurance shall name the District, its officials, employees, agents and authorized volunteers as additional insureds using form ISO 20 38 04 13 or endorsements providing the exact same coverage. All coverages for subcontractors shall be subject to all of the requirements stated herein except as otherwise agreed to by the District in writing.

3.13.9 Reporting of Claims. Contractor shall report to the District, in addition to Contractor's insurer, any and all insurance claims submitted by Contractor in connection with the Work under this Contract.

3.14 Bond Requirements.

3.14.1 Payment Bond. If required by law or otherwise specifically requested by District in Exhibit "C" attached hereto and incorporated herein by reference, Contractor shall execute and provide to District concurrently with this Contract a Payment Bond in an amount required by the District and in a form provided or approved by the District. If such bond is

required, no payment will be made to Contractor until the bond has been received and approved by the District.

3.14.2 Performance Bond. If specifically requested by District in Exhibit "C" attached hereto and incorporated herein by reference, Contractor shall execute and provide to District concurrently with this Contract a Performance Bond in an amount required by the District and in a form provided or approved by the District. If such bond is required, no payment will be made to Contractor until the bond has been received and approved by the District.

3.14.3 Bond Provisions. Should, in District's sole opinion, any bond become insufficient or any surety be found to be unsatisfactory, Contractor shall renew or replace the effected bond within (ten) 10 days of receiving notice from District. In the event the surety or Contractor intends to reduce or cancel any required bond, at least thirty (30) days prior written notice shall be given to the District, and Contractor shall post acceptable replacement bonds at least ten (10) days prior to expiration of the original bonds. No further payments shall be deemed due or will be made under this Contract until any replacement bonds required by this Section are accepted by the District. To the extent, if any, that the Total Contract Price is increased in accordance with the Contract, Contractor shall, upon request of the District, cause the amount of the bond to be increased accordingly and shall promptly deliver satisfactory evidence of such increase to the District. If Contractor fails to furnish any required bond, the District may terminate the Contract for cause.

3.14.4 Surety Qualifications. Only bonds executed by an admitted surety insurer, as defined in California Code of Civil Procedure Section 995.120, shall be accepted. If a California-admitted surety insurer issuing bonds does not meet these requirements, the insurer will be considered qualified if it is in conformance with Section 995.660 of the California Code of Civil Procedure, and proof of such is provided to the District.

3.15 Warranty. Contractor warrants all Work under the Contract (which for purposes of this Section shall be deemed to include unauthorized work which has not been removed and any non-conforming materials incorporated into the Work) to be of good quality and free from any defective or faulty material and workmanship. Contractor agrees that for a period of one year (or the period of time specified elsewhere in the Contract or in any guarantee or warranty provided by any manufacturer or supplier of equipment or materials incorporated into the Work, whichever is later) after the date of final acceptance, Contractor shall within ten (10) days after being notified in writing by the District of any defect in the Work or non-conformance of the Work to the Contract, commence and prosecute with due diligence all Work necessary to fulfill the terms of the warranty at its sole cost and expense. Contractor shall act sooner as requested by the District in response to an emergency. In addition, Contractor shall, at its sole cost and expense, repair and replace any portions of the Work (or work of other contractors) damaged by its defective Work or which becomes damaged in the course of repairing or replacing defective Work. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for an additional one year period, commencing with the date of acceptance of such corrected Work. Contractor shall perform such tests as the District may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstitution of equipment and materials necessary to gain access, shall be the

sole responsibility of Contractor. All warranties and guarantees of subcontractors, suppliers and manufacturers with respect to any portion of the Work, whether express or implied, are deemed to be obtained by Contractor for the benefit of the District, regardless of whether or not such warranties and guarantees have been transferred or assigned to the District by separate agreement and Contractor agrees to enforce such warranties and guarantees, if necessary, on behalf of the District. In the event that Contractor fails to perform its obligations under this Section, or under any other warranty or guaranty under this Contract, to the reasonable satisfaction of the District, the District shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse the District for any expenses incurred hereunder upon demand.

3.16 Employee/Labor Certifications.

3.16.1 Contractor's Labor Certification. By its signature hereunder, Contractor certifies that he is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Work. A certification form for this purpose, which is attached to this Contract as Exhibit "D" and incorporated herein by reference, shall be executed simultaneously with this Contract.

3.16.2 Equal Opportunity Employment. Contractor represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

3.16.3 Verification of Employment Eligibility. By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subconsultants and sub-subconsultants to comply with the same.

3.17 General Provisions.

3.17.1 District's Representative. The District hereby designates the General Manager, or his or her designee, to act as its representative for the performance of this Contract ("District's Representative"). District's Representative shall have the power to act on behalf of the District for all purposes under this Contract. Contractor shall not accept direction or orders from any person other than the District's Representative or his or her designee.

3.17.2 Contractor's Representative. Before starting the Work, Contractor shall submit in writing the name, qualifications and experience of its proposed representative who shall be subject to the review and approval of the District ("'Contractor's Representative"). Following

approval by the District, Contractor's Representative shall have full authority to represent and act on behalf of Contractor for all purposes under this Contract. Contractor's Representative shall supervise and direct the Work, using his best skill and attention, and shall be responsible for all construction means, methods, techniques, sequences and procedures and for the satisfactory coordination of all portions of the Work under this Contract. Contractor's Representative shall devote full time to the Project and either he or his designee, who shall be acceptable to the District, shall be present at the Work site at all times that any Work is in progress and at any time that any employee or subcontractor of Contractor is present at the Work site. Arrangements for responsible supervision, acceptable to the District, shall be made for emergency Work which may be required. Should Contractor desire to change its Contractor's Representative, Contractor shall provide the information specified above and obtain the District's written approval.

3.17.3 Termination. This Contract may be terminated by District at any time, either with our without cause, by giving Contractor three (3) days advance written notice. In the event of termination by District for any reason other than the fault of Contractor, District shall pay Contractor for all Work performed up to that time as provided herein. In the event of breach of the Contract by Contractor, District may terminate the Contract immediately without notice, may reduce payment to Contractor in the amount necessary to offset District's resulting damages, and may pursue any other available recourse against Contractor. Contractor may not terminate this Contract except for cause. In the event this Contract is terminated in whole or in part as provided, District may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated. Further, if this Contract is terminated as provided, District may require Contractor to provide all finished or unfinished documents, data, diagrams, drawings, materials or other matter prepared or built by Contractor in connection with its performance of this Contract.

3.17.4 Contract Interpretation. Should any question arise regarding the meaning or import of any of the provisions of this Contract or written or oral instructions from District, the matter shall be referred to District's Representative, whose decision shall be binding upon Contractor.

3.17.5 Anti-Trust Claims. This provision shall be operative if this Contract is applicable to California Public Contract Code Section 7103.5. In entering into this Contract to supply goods, services or materials, Contractor hereby offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and become effective at the time the District tender final payment to Contractor, without further acknowledgment by the Parties.

3.17.6 Notices. All notices hereunder and communications regarding interpretation of the terms of the Contract or changes thereto shall be provided by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

CONTRACTOR:

Well Industries Inc.
3282 Hwy 32
Chico, CA 95973
Attn: Ron Stilwell

DISTRICT:

Citrus Heights Water District 6230
Sylvan Road
Citrus Heights, California 95610
Attn: Water Resources Supervisor

Any notice so given shall be considered received by the other Party three (3) days after deposit in the U.S. Mail as stated above and addressed to the Party at the above address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.17.7 Time of Essence. Time is of the essence in the performance of this Contract.

3.17.8 Assignment Forbidden. Contractor shall not, either voluntarily or by action of law, assign or transfer this Contract or any obligation, right, title or interest assumed by Contractor herein without the prior written consent of District. If Contractor attempts an assignment or transfer of this Contract or any obligation, right, title or interest herein, District may, at its option, terminate and revoke the Contract and shall thereupon be relieved from any and all obligations to Contractor or its assignee or transferee.

3.17.9 No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

3.17.10 Laws, Venue, and Attorneys' Fees. This Agreement shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of Sacramento, State of California.

3.17.11 Counterparts. This Contract may be executed in counterparts, each of which shall constitute an original.

3.17.12 Successors. The Parties do for themselves, their heirs, executors, administrators, successors, and assigns agree to the full performance of all of the provisions contained in this Contract.

3.17.13 [Reserved]

3.17.14 Solicitation. Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Contract. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration

contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, District shall have the right to terminate this Contract without liability.

3.17.15 Conflict of Interest. Contractor maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Contractor, to solicit or secure this Agreement. Further, Contractor warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Contractor, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, District shall have the right to rescind this Agreement without liability. For the term of this Contract, no official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Contract, or obtain any present or anticipated material benefit arising therefrom. In addition, Contractor agrees to file, or to cause its employees or subcontractors to file, a Statement of Economic Interest with the District's Filing Officer as required under state law in the performance of the Work.

3.17.16 Certification of License.

3.17.16.1 Contractor certifies that as of the date of execution of this Contract, Contractor has a current contractor's license of the classification indicated below under Contractor's signature.

3.17.16.2 Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

3.17.17 Authority to Enter Contract. Each Party warrants that the individuals who have signed this Contract have the legal power, right and authority to make this Contract and bind each respective Party.

3.17.18 Entire Contract; Modification. This Contract contains the entire agreement of the Parties with respect to the subject matter hereof, and supersedes all prior negotiations, understandings or agreements. This Contract may only be modified by a writing signed by both Parties.

3.17.19 Non-Waiver. None of the provisions of this Agreement shall be considered waived by either party, unless such waiver is specifically specified in writing.

3.17.20 District's Right to Employ Other Contractors. District reserves right to employ other contractors in connection with this Project or other projects.

SIGNATURE PAGE FOR CONSTRUCTION CONTRACT BETWEEN THE CITRUS HEIGHTS WATER DISTRICT AND WELL INDUSTRIES, INC.

IN WITNESS WHEREOF, the Parties have entered into this Agreement as of the _____day of October, 2017.

CITRUS HEIGHTS WATER DISTRICT	WELL INDUSTRIES, INC.
By: _____	By: _____
Hilary M. Straus	
General Manager	Its: _____
	Printed Name: _____

ATTEST:

By: _____
Clerk of the Board

EXHIBIT "A"

PLANS AND SPECIFICATIONS

"THE FOLLOWING PLANS AND SPECIFICATIONS ARE INCORPORATED HEREIN BY REFERENCE AS IF SET FORTH IN THEIR ENTIRETY"

Sunrise Well and Palm Well

Rehabilitation Program

September 2017

Article I. Project Overview

The project includes the rehabilitation of the Sunrise and Palm Wells to remove scale clogging the intake screens. The wells are owned by Citrus Heights Water District (District). The District's consulting engineer is Luhdorff and Scalmanini (Engineer).

Scale samples shall be collected from each well. The samples will be evaluated to determine the appropriate chemical solution to be used in the rehabilitation program. The selected chemical solution shall be placed in the wells by the tremie pipe method. Mechanical methods agitation will be performed including rotary brushing, line swabbing, bailing, and swab/airlifting. Storage tanks (21,000 gallons) will be required at each site for development fluid containment. Development fluids at the Sunrise well site may be discharged to the adjacent open space as directed by the District. Development fluids from the Palm well shall be transported to the Sunrise site, pumped into the onsite storage tank for disposal to the designated open space. Discharge piping will be required to disperse development fluids to the open space. Contractor shall discharge the fluids in a manner that prevents erosion in the designated area.

Article II. Well Information

A. Sunrise Well

The Sunrise Well was drilled in 1991 by Beylik Drilling using the reverse circulation method. The well was constructed to a depth of 335 feet. At the time of construction, the well exhibited a specific capacity of approximately 40 gpm per foot of drawdown (gpm/ft).

A well construction profile is attached. The following table presents key construction features of the well:

Sunrise Well and Palm Well Rehabilitation Programs

Sunrise Well Construction Features:

Well Location:	7251 Canelo Hills Drive, Citrus Heights
Date of Construction:	1991
Well Depth:	335'
Current Well Depth (top of fill):	331
Static Water Level:	± 173'
Casing Diameter:	16" O.D.
Casing Material:	Mild Steel
Casing Wall Thickness:	1/4"
Perforation:	Standard-Flo Louvered Well Screen, 0.050″ Slot
Perforation Intervals:	204' to 267' and 310’ to 330’
Gravel Pack:	Gradation 8 x 16

On April 27, 2017, a pump test was conducted at 620 gpm. Due to excessive drawdown, the pump ran for 15 minutes before breaking suction. The pump was removed and a video survey conducted on May 11, 2017. A summary of the video survey is as follows:

- The static water level was 173 feet.
- The blank casing above the static water level is in good condition.
- The casing material is spiral welded pipe.
- There were small pit marks on the casing and the surface appears to be covered by a thin, smooth scale.
- The blank casing below the static water level is coated with a smooth scale that is hard in appearance.
- The top of the uppermost louvered well screen at 204 feet has minor scale build up, but scaling increases with depth. The bottom of the louvered section appears to be more than 90 percent plugged.
- The lower louvered screen section at 306 to 326 feet is more than 90 percent plugged.
- There are small pit marks throughout the wetted section of the well. The pit marks may be superficial and only penetrate the scale. The scale appears to be thin since the spiral welds are visible throughout most of the well. The scale is smooth and appears to be hard since it remained intact as the video camera scraped the casing wall.

B. Palm Well

The Palm well was drilled in 1991 by Beylik Drilling using the reverse circulation method. The well was constructed to depth 455 feet. At the time of construction, the well exhibited a specific capacity greater than 100 gpm/ft.

A well construction profile is attached. The following table presents key construction features of the well:

Palm Well Construction Features:

Well Location:	7349 Palm Ave., Citrus Heights
Date of Construction:	1991
Well Depth:	455'
Current Well Depth (top of fill):	447’
Static Water Level:	171'
Casing Diameter:	16" O.D.
Casing Material:	Mild Steel
Casing Wall Thickness:	1/4” and 5/16"
Perforation:	Super-Flo Louvered Well Screen, 0.050″ Slot
Perforation Intervals:	258' to 278', 289' to 356’, 378’ to 398’, 400’ to 410’ and 432’ to 450’
Gravel Pack:	Gradation 8 x 16

Due to a mechanical failure, a pump test was not performed prior to pump removal. A video log was conducted by West Coast Well Logging on April 11, 2017. LSCE made the following observations after reviewing the log:

- The static water level was 171 feet.
- The casing material is spiral welded pipe.
- The blank casing above the static water level has a flakey rough texture. This is common to wells and is likely caused by damp casing or sodium hypochlorite not completely washed from the casing during chlorination.
- There was no oil observed at the static water level; typically, oil accumulates at the static level for an oil-lube pump installation.
- The blank casing below the static water level appears to be coated with a smooth, thin hard scale.
- There are five louvered sections in the well. Each section is coated with the same smooth scale as the blank casing except the scale appears to increase in thickness with depth. The upper louvered section is about 90 percent plugged and the bottom louvered section appears to be completely plugged.
- No structural damage to the well casing was observed in the video survey.

Article lll. Chemical Rehabilitation Proposed Program/Schedule

The contractor shall perform rehabilitation work as outlined below and at the direction of the Engineer.

Day 1

1. Contractor shall mobilize to the Sunrise well and set up to line brush.
2. Tag and record total depth of the well.
3. Using a wire brush, line brushed for ½ hour. Note: Wire brush shall be constructed per enclosed drawing or approved by the Engineer.
4. Tag and record top of fill.
5. Remove fill with a bailer. The Engineer will collect a sample of the scale.
6. Mobilize to the Palm well and repeat steps 1 through 5.
7. The Engineer will have the scale samples analyzed to determine the appropriate chemical solution and quantities to use in each well. Within two weeks, the Engineer will notify the Contractor of the selected chemicals after which the Contractor shall have two weeks to order chemicals and mobilize back to the sites and start the chemical treatment. District may grant a time extension if requested.

Day 2

8. Mobilize to the Sunrise well site. Spot location of storage tank (21,000-gallon capacity) placement. Set up to start rotary brushing. Note: Rotary brush shall be constructed per the enclosed drawing or approved by the Engineer.

Day 3

9. Rotary brushing shall start at the bottom of the well and work upward at 1 minutes per foot at 20 rpm up to 200 feet below ground surface.
10. Trip out brush, measure diameter, if diameter is less than the I.D. of the casing replace bristles as needed before re-using the brush on the second pass
11. Tag and record top of fill. If fill is above 302 feet, remove fill by bailing or airlifting.

Day 4

12. Set up to mix chemicals. The chemical solution shall be injected into the well through the rotary brush. For bidding purposes, Contractor shall assume that chemical mixing will require a 1,000-gallon mixing tank. Chemical mixture shall be placed through the drill pipe and exit the drill pipe at the top of the rotary brush into the well.

13. The rotary brush shall be tripped to the bottom of the well. The chemical solution shall be evenly placed over a 20-foot section of screen section (volume to be determined) before commencing with rotary brushing at 1 minute per foot working upward. This procedure shall be repeated working upward to 200 feet below ground surface.

14. Once the prescribed amount of chemical solution has been placed and rotary brushing is complete, the tooling shall be removed from the well.

15. The top of fill shall be tagged and the depth recorded.

16. Using a disposable bailer, a water sample shall be collected at 250-feet. The sample shall be used to check and record the pH of the water.

Day 5

17. Line swab for 1 hour.

18. Using a disposable bailer, collected a water sample at 250-feet, check and record the pH.

    a. If the pH is less than 2.5, continue to line swab for 3 hours and then let the well sit idle until day 6.

    b. If the pH is greater than 2.5, prepare to start swab/airlift development.

19. Swab/airlifting shall commence at the top of the screen at 204 feet and work downward at a rate of 4 minutes per foot or until clean as determined by the Engineer. The development fluids shall be pumped into the storage tank and neutralized before discharging to the designated open space adjacent to the site. The water shall be dispersed to the open space in such a manner that all the water is percolated into the ground. The Contractor is responsible to prevent any water from entering the storm drain that is located within the open space or causing erosion of the ground surface.

Day 6

20. Once swab/airlift development has reached bottom, the top of fill shall be recorded. The Contractor shall attempt to remove the fill with swab/airlifting tool. Once complete, swab/airlift development shall continue upward at a rate of 2 minutes per foot or until cleaned as determined by the Engineer.

21. Once development is complete, tag and record total depth of the well. If the fill is above 332 feet, bail fill to total depth.

22. Perform final chlorination by evenly dispersing 3 gallons of 12-½ percent sodium hypochlorite throughout the wetted portion of the well to achieve a chlorine residual of 150 ppm.

Day 7

23. Mobilize to the Palm well site. Spot storage tank (21,000 gallon). Set up to start rotary brushing.

Day 8

24. Rotary brushing shall start at the bottom of the well and work upward at 1 minute per foot at 20 rpm up to 255 feet below ground surface.

25. Trip out brush, measure diameter; if diameter is less than the I.D. of the casing, replace bristles before re-using the brush on the second pass.

26. Tag and record top of fill. If fill is above 452 feet, remove fill by bailing or airlifting.

Day 9

27. Set up to mix chemicals. The chemical solution shall be injected through the rotary brush. For bidding purposes, assume chemical mixing will require a 1,000-gallon mixing tank. Chemical mixture shall be placed through the drill pipe and exit the drill pipe at the top of the rotary brush into the well.

28. The rotary brush shall be tripped to the bottom of the well. The chemical solution shall be evenly placed over a 20-foot section of screened section (volume to be determined) before commencing with rotary brushing at 1 minute per foot working upward. This procedure shall be repeated working upward to 255 feet below ground surface.

29. Once the prescribed amount of chemical solution has been placed and rotary brushing is complete, the tooling shall be removed from the well.

30. The top of fill shall be tagged and the depth recorded.

31. Using a disposable bailer, a water sample shall be collected at 300-feet. The sample shall be used to check and record the pH of the water.

Day 10

32. Line swab for 1 hour.

33. Using a disposable bailer, collect a water sample at 300-feet, and check and record the pH.

    c. If the pH is less than 2.5, continue to line swab for 3 hours and then let the well sit idle until day 6.

    d. If the pH is greater than 2.5, prepare to start swab/airlift development.

34. Swab/airlifting shall commence at the top of the screen at 258 feet and work downward at a rate of 4 minutes per foot or until clean as determined by the Engineer. The development fluids shall be pumped into the storage tank and neutralized before transporting to the Sunrise site. The Contractor shall be responsible for transporting the fluids to the Sunrise site, pumping into the storage tank, and discharging the fluids to the designated open space. The Contractor is responsible for providing a water truck to safely transport the development fluids. For bidding purposed assume each truck load will consist of 4,000 gallons.

Day 11

35. Once swab/airlift development has reached bottom, the top of fill shall be recorded. The Contractor shall attempt to remove the fill with swab/airlifting tool. Once complete, swab/airlift development shall continue upward at a rate of 2 minutes per foot or until clean as determined by the Engineer.

36. Once development is complete, tag and record total depth of the well. If the fill is above 452 feet, bail fill to total depth.

Day 12 and 13

37. Install a gear driven test pump with a design of 2250 gpm @ 350 feet, TDH. The pump suction shall be placed to a depth of 240 feet. The discharge assembly shall be constructed per the enclosed “test discharge assembly drawing” or approved equal. The discharge piping shall terminate at the onsite overboard structure. Test pump water shall be pumped into the overboard structure and into the Districts storm drain system.

Day 14 and 15

38. Conduct test pumping at the direction of the Engineer.

Day 16

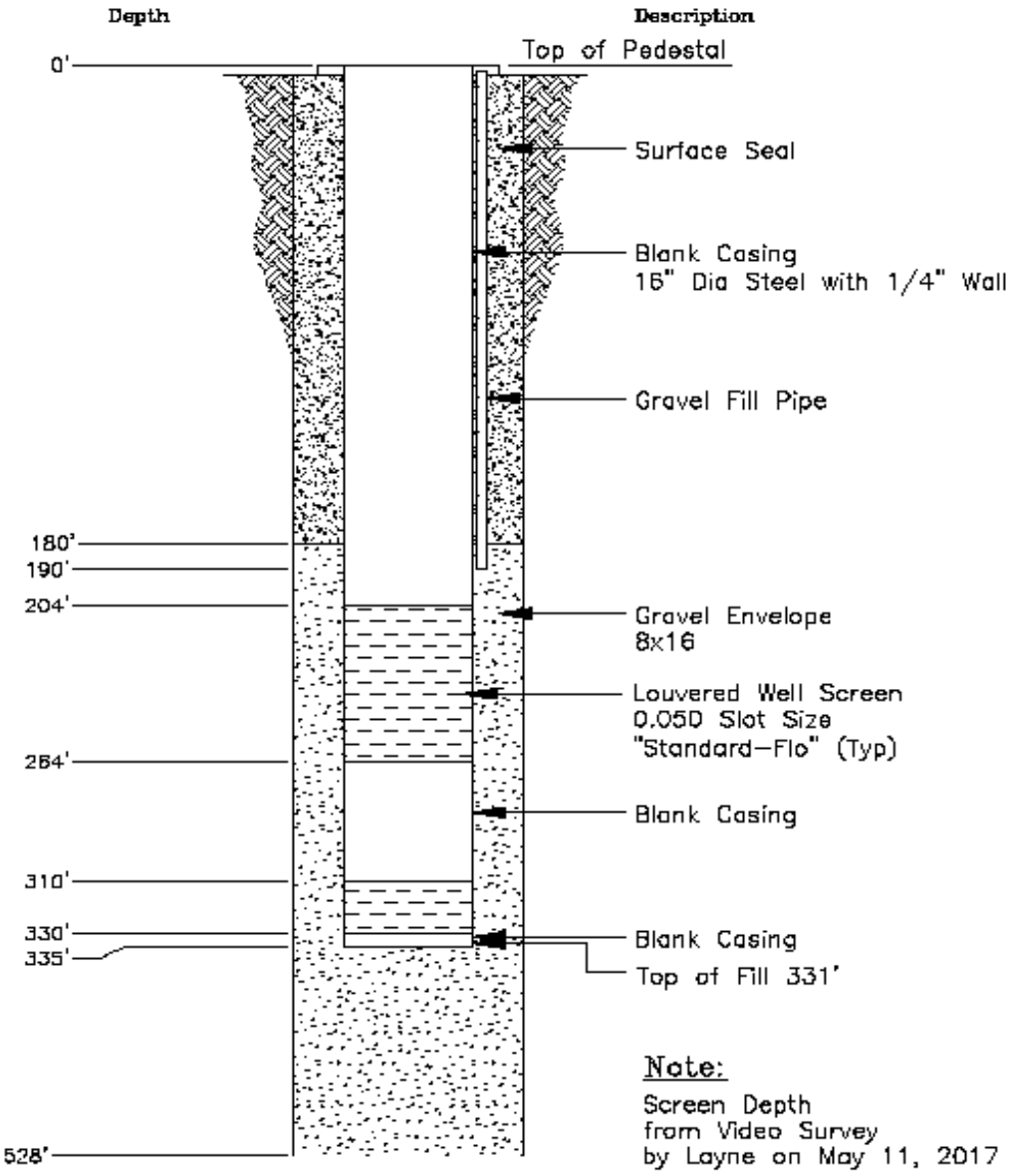
39. After the test pump has been removed, the total depth of the well shall be measured. If the fill is above 452 feet, bail fill to total depth.

40. Perform final chlorination by evenly dispersing 5 gallons of 12-½ percent sodium hypochlorite throughout the wetted portion of the well to achieve a chlorine residual of 150 ppm.

Sunrise Well and Palm Well Rehabilitation Programs

41. Remove storage tanks from Sunrise and Palm site.

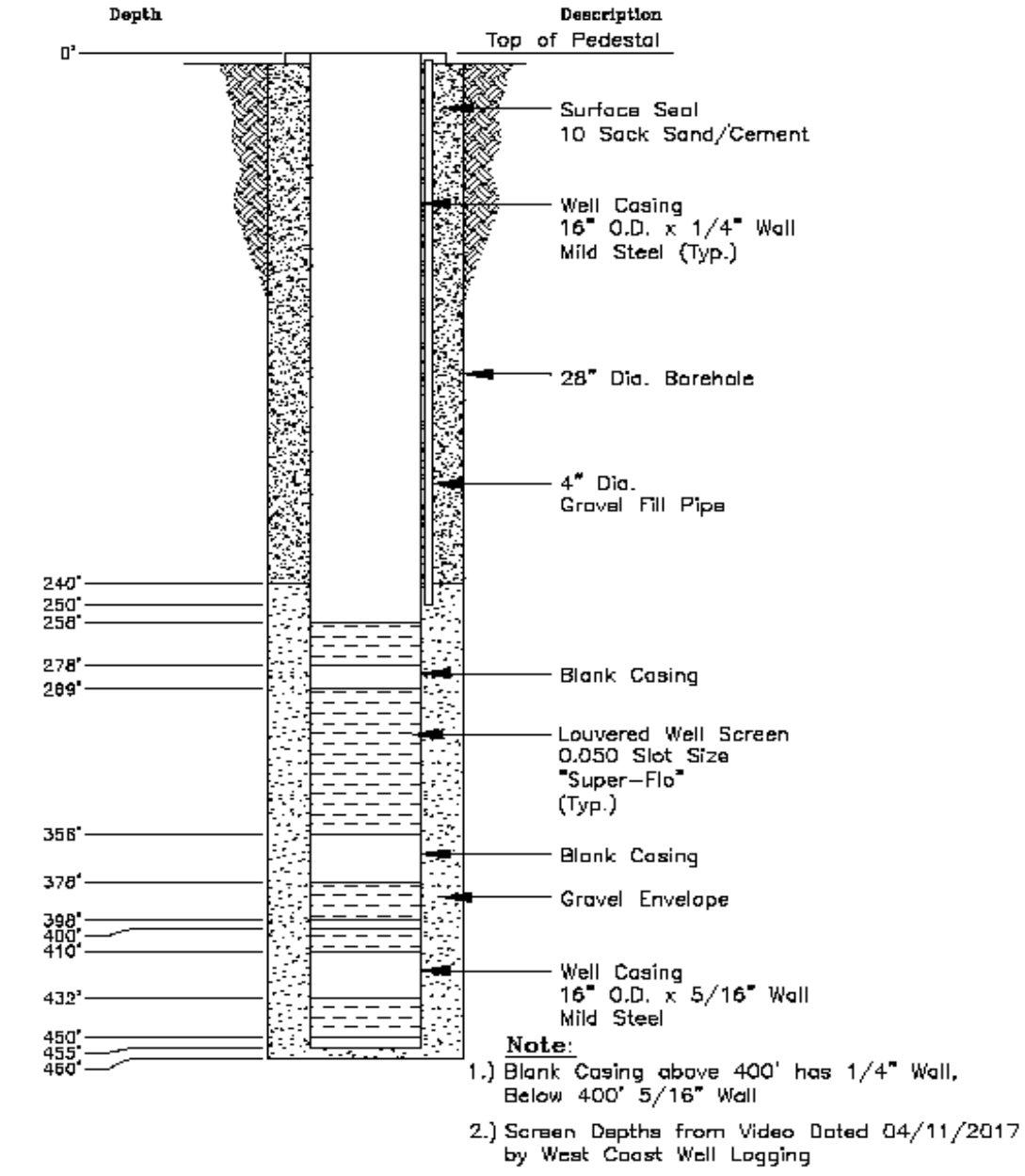
42. De-mobilize and secure both sites.



CAD FILE: G:/Projects/Citrus Heights Water District/17-5-017/Sunrise Well.dwg CTB FILE: LSCE2500.PCP_MRG DATE: 08-01-17 2:59pm

LUHDORFF & SCALMANINI
CONSULTING ENGINEERS

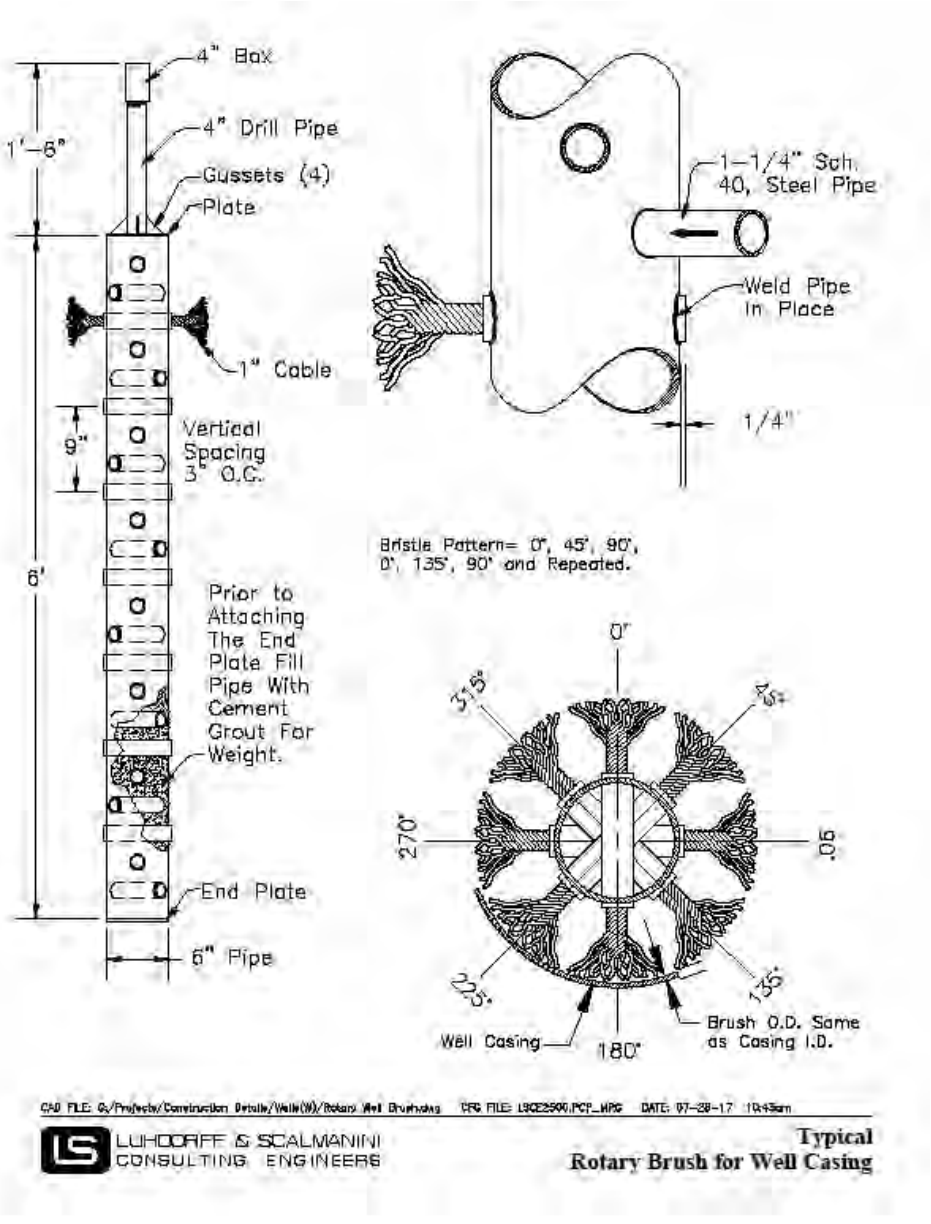
Sunrise Well
Citrus Heights Water District
Citrus Heights, California

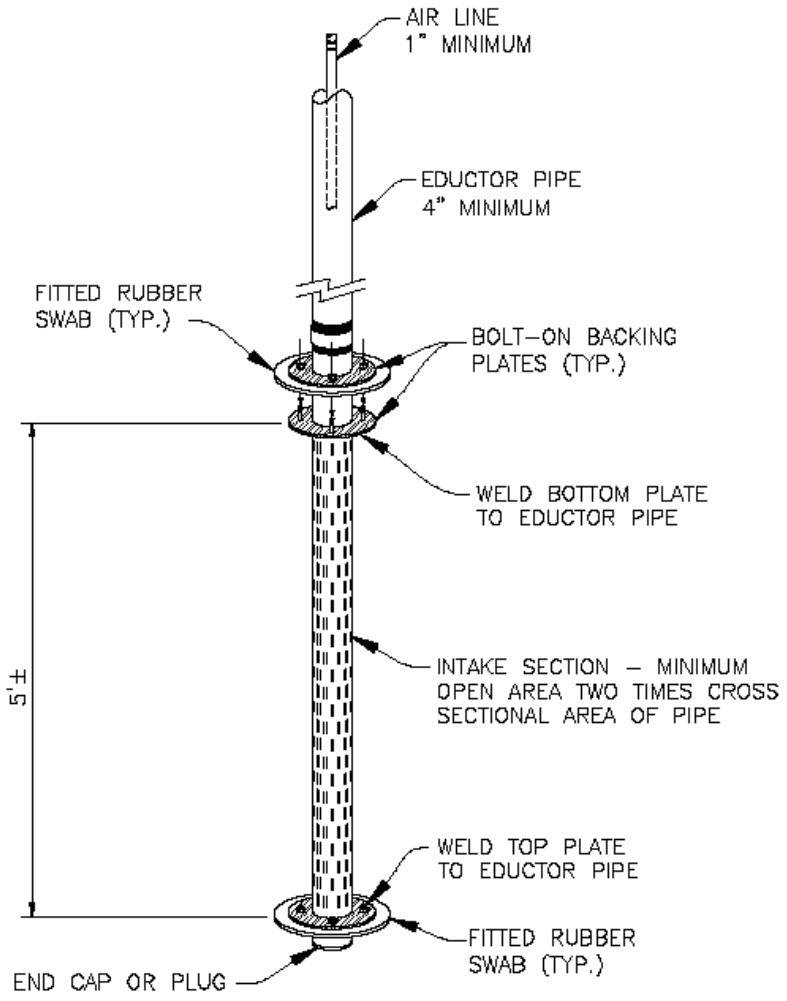


CAD FILE: G:/Projects/Citrus Heights Water District/17-5-017/Palm Well.dwg CFG FILE: L9CC2500.PCP_WRG DATE: 08-01-17 3:02pm

LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Palm Well
Citrus Heights Water District
Citrus Heights, California


4" Box
4" Drill Pipe
Gussets (4)
Plate
1'-6"
1" Cable
9"
Vertical Spacing 3" O.C.
6'
Prior to Attaching The End Plate Fill Pipe With Cement Grout For Weight.
End Plate
6" Pipe
1-1/4" Sch. 40, Steel Pipe
Weld Pipe In Place
1/4"
Bristle Pattern= 0°, 45°, 90°, 0°, 135°, 90° and Repeated.
0°
45°
90°
135°
180°
225°
270°
315°
Well Casing
Brush O.D. Same as Casing I.D.
CAD FILE: G:/Projects/Construction Details/Wells(W)/Rotary Well Brushing CFG FILE: L9CE2500.PCF_WPG DATE: 07-28-17 10:43am
LUHDORFF & SCALMANINI CONSULTING ENGINEERS
Typical
Rotary Brush for Well Casing



WELL DEVELOPMENT TOOL

N.T.S.

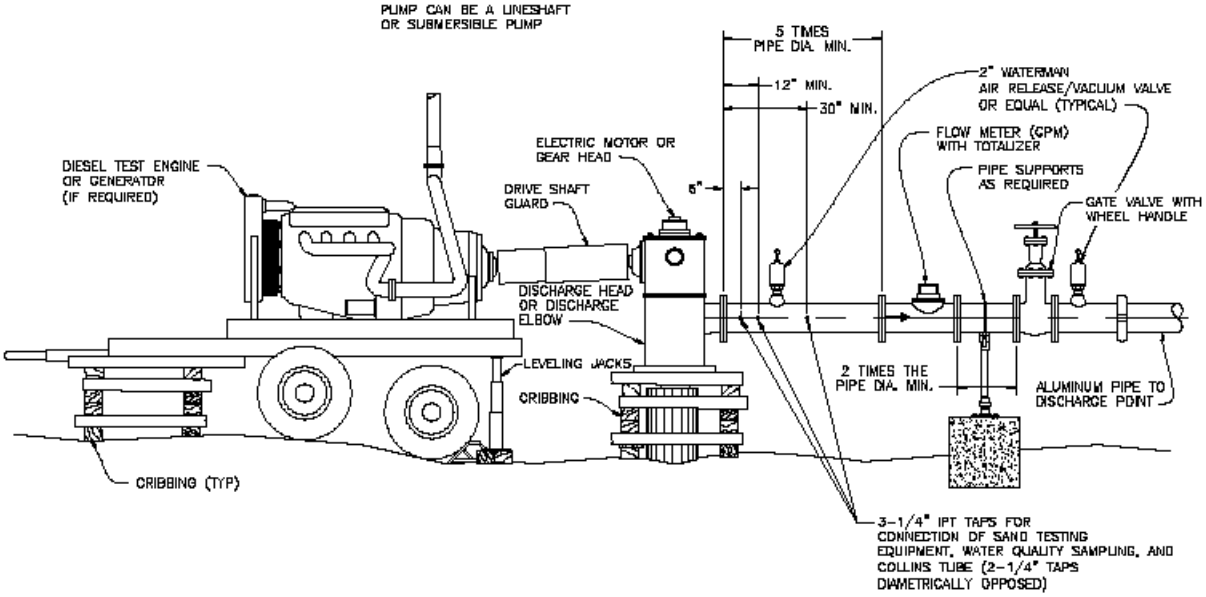
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LUHDORFF & SCALMANINI
CONSULTING ENGINEERS

Figure 1
Well Development Tool

NOTE:

PUMP CAN BE A LINESHAFT OR SUBMERSIBLE PUMP



WELL TEST PUMP AND DISCHARGE ASSEMBLY

N.T.S.

CAD FILE: C:/Projects/Construction Details/Wells(All)/2. Test Pump Discharge Assembly/Test Pump Discharge.dwg CFG FILE: LSCE2500LPCP_NRC DATE: 08-02-17 3:22pm

LUHDORFF & SCALMANINI CONSULTING ENGINEERS

Test Discharge Assembly

EXHIBIT "B"

SPECIAL CONDITIONS

ARTICLE 1. BONDS

Within ten (10) calendar days from the date the Contractor is notified of award of the Contract, the Contractor shall deliver to the District four identical counterparts of the Performance Bond and Payment Bond on the forms supplied by the District and included as Exhibit "E" to the Contract. Failure to do so may, in the sole discretion of District, result in the forfeiture of Contractor's bid security. The surety supplying the bond must be an admitted surety insurer, as defined in Code of Civil Procedure Section 995.120, authorized to do business as such in the State of California and satisfactory to the District. The Performance Bond and the Payment Bond shall be for one hundred percent (100%) of the Total Contract Price.

EXHIBIT "C"

CERTIFICATION
LABOR CODE - SECTION 1861

I, the undersigned Contractor, am aware of the provisions of Section 3700, et seq., of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of the Code, and I, the undersigned Contractor, agree to and will comply with such provisions before commencing the performance of the Work on this Contract.

Well Industries, Inc.

By: _____
Signature

_____
Name (Print)

_____
Title (Print)

EXHIBIT "D"

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

If this bid is due on or after March 1, 2015, then pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See http://www.dir.ca.gov/Public-Works/PublicWorks.html for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Contractor hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Contractor: WELL INDUSTRIES INC.

DIR Registration Number: 1000037977

Contractor further acknowledges:

1. Contractor shall maintain a current DIR registration for the duration of the project.

2. Contractor shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.

3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: R Stilwell

Name and Title: RON STILWELL - PRESIDENT

Dated: 10-2-2017

EXHIBIT "E"

PAYMENT AND PERFORMANCE BONDS

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the Citrus Heights Water District (hereinafter referred to as "District") has awarded to Well Industries, Inc., (hereinafter referred to as the "Contractor") _____ an agreement for SUNRISE WELL AND PALM WELL REHABILITATION PROJECT (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, Well Industries, Inc., the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the District in the sum of _____ DOLLARS, ($_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify and save harmless the District, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by District, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship, Surety shall undertake and faithfully fulfill all such obligations. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein

shall limit the District's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the District to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the District's option:

(1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or

(2) Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the District, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

(3) Permit the District to complete the Project in any manner consistent with local, California and federal law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the District may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the District, when declaring the Contractor in default, notifies Surety of the District's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__).

(Corporate Seal)

_____
Contractor/ Principal

By _____

Title _____

_____
Surety

(Corporate Seal)

By _____
Attorney-in-Fact

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached.

(Attach Attorney-in-Fact Certificate) Title _____

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, $_____.
(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____
_____
_____

(Name and Address of Agent or Representative for service of process in California, if different from above) _____
_____
_____

(Telephone number of Surety and Agent or Representative for service of process in California) _____

NOTE: A copy of the Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____	Signer(s) Other Than Named Above

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS That

WHEREAS, the Citrus Heights Water District (hereinafter designated as the "District"), by action taken or a resolution passed_____, 20____has awarded to _____ hereinafter designated as the "Principal," a contract for the work described as follows:

_____ (the "Project"); and

WHEREAS, the work to be performed by the Principal is more particularly set forth in the Contract Documents for the Project dated _____ ("Contract Documents"), the terms and conditions of which are expressly incorporated by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the District in the penal sum of _____ _____ Dollars ($_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Section 9100 of the Civil Code, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 18663 of the Revenue and Taxation Code, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to

recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or District and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 9100 of the Civil Code, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned and the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

_____
Contractor/ Principal

By _____

Title _____

_____
Surety

(Corporate Seal)

By _____
Attorney-in-Fact

Title _____

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached. A Power-of-Attorney authorizing the person signing on behalf of the Surety to do so much be attached hereto.

NOTE: A copy of the Power-of-Attorney authorizing the person signing on behalf of the Surety to do so must be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory

evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____	Signer(s) Other Than Named Above

BID FORM

NAME OF BIDDER: WELL INDUSTRIES INC., DBA NINTH STATE DRILLING

The undersigned, hereby declare that we have carefully examined the location of the proposed Work, and have read and examined the Contract Documents, including all plans, specifications, and all addenda, if any, for the following Project:

SUNRISE WELL AND PALM WELL REHABILITATION PROJECT

We hereby propose to furnish all labor, materials, equipment, tools, transportation, and services, and to discharge all duties and obligations necessary and required to perform and complete the Project in strict accordance with the Contract Documents for the TOTAL BID PRICE.

In the event the bid schedule requires unit pricing, final payment shall be determined by the District from measured quantities of work performed based upon the unit price.

CONTRACT BID ITEMS

ITEM	DESCRIPTION	UNIT OF MEASURE	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
1	Mobilization of Equipment and Personnel	Lump Sum	1	15,000	$15,000.00
2	Storage Tanks (21,000 gallons each)	Lump Sum	2	2000	$4,000.00
3	Rig and Crew to Perform Brushing, Swabbing and Bailing	Hours	20	240	$4,800.00
4	Rig and Crew to Perform Rotary Brushing	Hours	40	400	$16,000.00
5	Rig and Crew to Perform Swab/Airlift Development	Hours	35	240	$8,400
6	Transport of Development Fluids per 4,000 Gallon Truck Load	Load	40	250	$10,000.00
7	Gear Driven Test Pump, Installation and Removal, with Discharge Assembly and Discharge Piping	Lump Sum	1	5000	$5,000
8	Test Pumping	Hours	16	225	$3,600
9	**Materials**				
	Cost Plus Percent Markup	Percent	XXXX	1.5	XXXX
	Total Estimated Cost				$66,800.00

Bidders must provide pricing for every bid item.

Quantities are not guaranteed. Payments will be based on actual installed quantities measured in the field. The estimate of construction quantities set forth above is approximate only, being given as a basis for the comparison of bids, and the District does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the District.

The bid item as listed is meant to encompass all construction and work items as called out in these contract specifications.

All incidental and overhead costs such as administration, permits, mobilization, demobilization, bonds and insurance, etc., shall be included in the bid item.

All bids will be compared on the basis of the District's estimate of the quantities of the work to be done.

The undersigned has checked carefully all of the above figures and understands that the District shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

In case a discrepancy or error exists between the bid item extensions totals and the grand total, the sum of the extensions shall prevail as the basis for award. In case of a discrepancy between words and figures, the words shall prevail.

TOTAL BID PRICE (BASED ON BID SCHEDULE TOTAL OF UNIT PRICES):

$ 66,800.00
Total Bid Price in Numbers

SIXTY SIX THOUSAND EIGHT HUNDRED & 00/100
Total Bid Price in Written Form

In case of discrepancy between the written price and the numerical price, the written price shall prevail.

The undersigned agrees that the bid accompanied by this Bid Form constitutes a firm offer to the District which cannot be withdrawn for the number of calendar days indicated in the Notice Inviting Bids from and after the bid opening, or until a Contract for the Work is fully executed by the District and a third party, whichever is earlier.

If the Contract Documents specify alternate bid items, the Alternate Additive or Deductive Bid amounts shall be added to or deducted from the Total Bid Price at the District's sole option. The District can choose to include one or more of the Alternate Bids in the Project. If any of the Alternate Bids are selected by the District, the resulting amount shall be added to or deducted from

Total Bid Price for the Project. The District may select one or more of the Alternate Bids at the stated Bid Price up to sixty (60) days following award of the Contract. The District can award/select Alternate Bid items at any time(s).

The Contract duration shall commence on the date stated in the District's Notice to Proceed, and shall be completed by the Contractor in the time specified in the Contract Documents. In no case shall the Contractor commence construction prior to the date stated in the District's Notice to Proceed, or before providing the required bonds and evidence of insurance.

Bidder certifies that it is licensed in accordance with the law providing for the registration of Contractors, License No. 812678 Expiration Date 7-31-19, class of license C57. Bidder certifies that it is registered with the Department of Industrial Relations to perform public work, Registration No 1000037977 If the bidder is a joint venture, each member of the joint venture must include the above information.

The undersigned acknowledges understanding and full consideration of the electronically issued addenda to the Contract Documents.

1. Attached is the required bid security in the amount of not less than 10% of the Total Bid Price.

2. Attached is the completed Public Works Contractor Registration Certification.

3. Attached is the completed Contractor's Certificate Regarding Workers' Compensation form.

I hereby certify under penalty of perjury under the laws of the State of California, that all of the information submitted in connection with this Bid and all of the representations made herein are true and correct.

Name of Bidder WELL INDUSTRIES INC,

Signature _____

Name and Title RON STILWELL

Dated 10-1-2017

END OF BID FORM

BID BOND

The makers of this bond are, Well Industries, Inc. dba North State Drilling, as Principal, and International Fidelity Insurance Company, as Surety and are held and firmly bound unto Citrus Heights Water District, hereinafter called the District, in the penal sum of TEN PERCENT (10%) OF THE TOTAL BID PRICE of the Principal submitted to District for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated October 4th, 20 17, for "Sunrise Well & Palm Well Rehab Project" (INSERT PROJECT NAME).

If the Principal does not withdraw its bid within the time specified in the Contract Documents; and if bid is rejected or, in the alternate, the Principal is awarded the Contract, signs the Contract and provides all documents to the District as required by the Contract Documents; then this obligation shall be null and void. Otherwise, this bond will remain in full force and effect and upon default of the Principal shall be forfeited to the District, it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal shall be the amount of this obligation as herein stated, as liquidated damages.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents shall affect its obligation under this bond, and Surety does hereby waive notice of any such changes.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this 2 day of October, 2017, the name and corporate seal of each corporation.

(Corporate Seal)

Well Industries, Inc. dba North State Drilling
Contractor/ Principal

By _____

Title PRESIDENT

International Fidelity Insurance Company
Surety

(Corporate Seal)

By _____

(Attach Attorney-in-Fact Certificate)

Title Sara Walliser, Attorney in Fact

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF Butte

On October 2nd, 2017, before me, Elizabeth Collodi, Notary Public, personally

appeared Sara Walliser, Attorney in Fact, who proved to me on the basis of satisfactory
Name(s) of Signer(s)

evidence to be the person~~(s)~~ whose name~~(s)~~ is/~~are~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~they~~ executed the same in ~~his~~/her/~~their~~ authorized capacity~~(ies)~~, and that by ~~his~~/her/~~their~~ signature~~(s)~~ on the instrument the person~~(s)~~, or the entity upon behalf of which the person~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

ELIZABETH COLLODI
COMM. # 2056602
NOTARY PUBLIC · CALIFORNIA
COUNTY OF BUTTE
Comm. Expires FEB. 1, 2018

Signature of Notary Public

WITNESS my hand and official seal.

Elizabeth Collodi

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- ☐ Individual
- ☐ Corporate Officer

Title(s)

- ☐ Partner(s) ☐ Limited ☐ General
- ☐ Attorney-In-Fact
- ☐ Trustee(s)
- ☐ Guardian/Conservator
- ☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

DESCRIPTION OF ATTACHED DOCUMENT

Title or Type of Document

Number of Pages

Date of Document

Signer(s) Other Than Named Above

Tel (973) 624-7200

POWER OF ATTORNEY

INTERNATIONAL FIDELITY INSURANCE COMPANY
ALLEGHENY CASUALTY COMPANY

ONE NEWARK CENTER, 20TH FLOOR NEWARK, NEW JERSEY 07102-5207

KNOW ALL MEN BY THESE PRESENTS: That **INTERNATIONAL FIDELITY INSURANCE COMPANY**, a corporation organized and existing under the laws of the State of New Jersey, and **ALLEGHENY CASUALTY COMPANY** a corporation organized and existing under the laws of the State of New Jersey, having their principal office in the City of Newark, New Jersey, do hereby constitute and appoint

ELIZABETH COLLODI, JOSEPH H. WEBER, SARA WALLISER, STEPHANIE AGAPOFF, KATHERINE GORDON, RENEE RAMSEY, MELISSA D. DIAZ, JOHN HOPKINS, NANCY LUTTENBACHER, BOBBIE BEENY, JENNIFER LAKMANN, MINDY STEPHENS, RICHARD W. PRATT, JOHN J. WEBER, PHIL WATKINS, STEVEN L. WILLIAMS, BONNIE TWO BEARS, SHAWNA JOHNSON

Sacramento, CA.

their true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY, as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by their regularly elected officers at their principal offices.

This Power of Attorney is executed, and may be revoked, pursuant to and by authority of the By-Laws of INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY and is granted under and by authority of the following resolution adopted by the Board of Directors of INTERNATIONAL FIDELITY INSURANCE COMPANY at a meeting duly held on the 20th day of July, 2010 and by the Board of Directors of ALLEGHENY CASUALTY COMPANY at a meeting duly held on the 15th day of August, 2000:

"RESOLVED, that (1) the President, Vice President, Chief Executive Officer or Secretary of the Corporation shall have the power to appoint, and to revoke the appointments of, Attorneys-in-Fact or agents with power and authority as defined or limited in their respective powers of attorney, and to execute on behalf of the Corporation and affix the Corporation's seal thereto, bonds, undertakings, recognizances, contracts of indemnity and other written obligations in the nature thereof or related thereto; and (2) any such Officers of the Corporation may appoint and revoke the appointments of joint-control custodians, agents for acceptance of process, and Attorneys-in-fact with authority to execute waivers and consents on behalf of the Corporation; and (3) the signature of any such Officer of the Corporation and the Corporation's seal may be affixed by facsimile to any power of attorney or certification given for the execution of any bond, undertaking, recognizance, contract of indemnity or other written obligation in the nature thereof or related thereto, such signature and seals when so used whether heretofore or hereafter, being hereby adopted by the Corporation as the original signature of such officer and the original seal of the Corporation, to be valid and binding upon the Corporation with the same force and effect as though manually affixed."

IN WITNESS WHEREOF, INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY have each executed and attested these presents on this 31st day of December, 2016.

INTERNATIONAL FIDELITY INSURANCE COMPANY CORPORATE SEAL 1904 NEW JERSEY

STATE OF NEW JERSEY
County of Essex

ROBERT W. MINSTER
Chief Executive Officer (International Fidelity Insurance Company) and President (Allegheny Casualty Company)

ALLEGHENY CASUALTY COMPANY 1936 NEW JERSEY

On this 31st day of December 2016, before me came the individual who executed the preceding instrument, to me personally known, and, being by me duly sworn, said he is the therein described and authorized officer of INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY; that the seals affixed to said instrument are the Corporate Seals of said Companies; that the said Corporate Seals and his signature were duly affixed by order of the Boards of Directors of said Companies.

IN TESTIMONY WHEREOF, I have hereunto set my hand affixed my Official Seal, at the City of Newark, New Jersey the day and year first above written.

CATHY CRUZ NOTARY PUBLIC STATE OF NEW JERSEY MY COMMISSION EXPIRES 04-16-2019

A NOTARY PUBLIC OF NEW JERSEY
My Commission Expires April 16, 2019

CERTIFICATION

I, the undersigned officer of INTERNATIONAL FIDELITY INSURANCE COMPANY and ALLEGHENY CASUALTY COMPANY do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit, and the copy of the Sections of the By-Laws of said Companies as set forth in said Power of Attorney, with the originals on file in the home office of said companies, and that the same are correct transcripts thereof, and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 2 day of October 2017

MARIA BRANCO, Assistant Secretary

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: REQUEST APPROVAL OF CONSTRUCTION BID PACKAGE FOR HIGHLAND AVENUE AND ROSA VISTA LANE WATER MAIN REPLACEMENT PROJECT
STATUS	: Action Item
REPORT DATE	: October 11, 2017
PREPARED BY	: Missy Pieri, Engineering Manager/District Engineer

OBJECTIVE:
Request approval of construction bid package for construction bids for the Highland Avenue and Rosa Vista Lane Water Main Replacement project.

BACKGROUND AND ANALYSIS:
The Board of Directors approved a total project budget of $396,672 for the design and construction of the Highland Avenue 8" Main Replacement and Rosa Vista Avenue 8" Main Installation Project (Project Number 2015-33). The schematic plan was used to develop the Engineer's Preliminary Construction Cost Estimate of $299,207 with a 10% contingency of $29,921 for a total of $329,128.

In 2017, Warren Consulting Engineers provided surveying and engineering services and developed plans based on the Citrus Heights Water District (District) design. An updated Engineer's Preliminary Construction Cost Estimate was prepared on 09/28/2017 based on contract documents designed by Citrus Heights Water District staff and drafted by Warren Consulting Engineers. The Engineer's Preliminary Construction Cost Estimate was $376,711 with a 10% contingency of $37,671 for a total of $414,382.

The increase in the Engineer's Preliminary Construction Cost Estimate from the schematic plans to the final plans is attributed to the following items:

- Additional 171 linear feet of 8-inch water main included in the final plans to minimize impact to an existing oak tree.
- Increase in paving square footage due to additional water main and increase in unit pricing to reflect the District's 2017 on-call paving unit pricing.
- Relocation of two water services along Rosa Vista Lane to eliminate a backyard main.

Engineer's Preliminary Construction Cost Estimate + 10% Contingency (based on schematic plans)	$414,382
Engineer's Preliminary Construction Cost Estimate + 10% Contingency (based on final plans)	$329,128
Difference:	**$85,254**

At this time, there is no financial impact as actual costs will not be known until bids are received. If bids come in higher than the Engineer's Preliminary Construction Cost Estimate of $299,207, a funding plan will be presented at the time of award of contract.

The plans and contract are complete, subject to minor modifications, and are incorporated as an attachment to this report. A detailed report of the engineer's preliminary construction cost estimate is available at the Board Clerk's office.

RECOMMENDATION:
Approve the construction bid package for construction bids for the Highland Avenue and Rosa Vista Water Main Replacement Project. Authorize the General Manager or General Manager's designee to solicit construction bids for the project.

ATTACHMENT:
1. Plans for the Highland and Rosa Vista Lane Water Main Replacement Project
2. Contract for the Highland and Rosa Vista Lane Water Main Replacement Project

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

ATTACHMENT 1

Highland and Rosa Vista Lane Water Main
Replacement Project
Plans

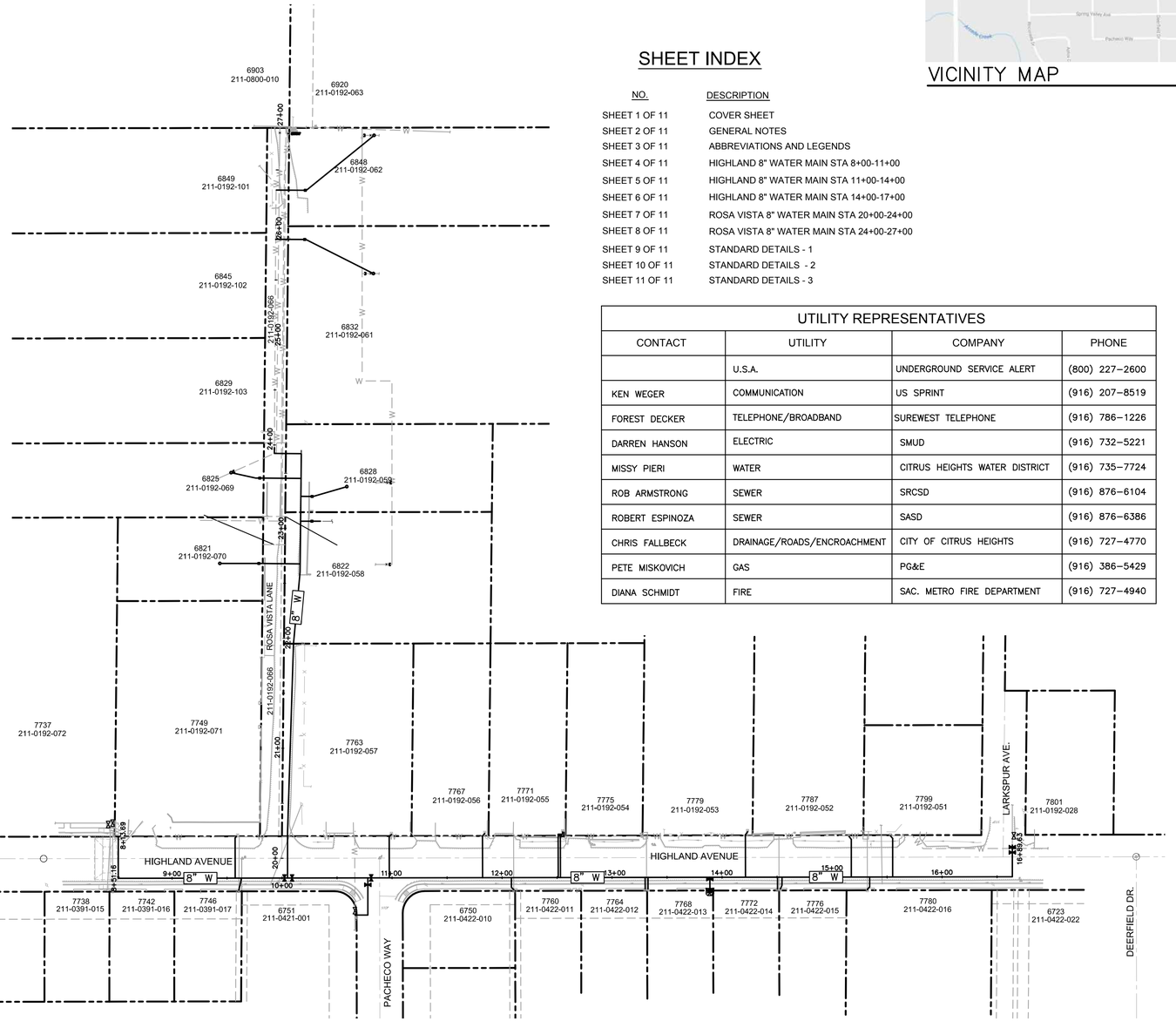
CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT &
ROSA VISTA LANE 8" WATER MAIN INSTALLATION

PROJECT NO. C15-133

APPROVED FOR CONSTRUCTION	
MELISSA PIERI CITRUS HEIGHTS WATER DISTRICT	DATE
APPROVALS ARE GOOD FOR 12 MONTHS FROM DATE OF SIGNATURE	

APPROVED FOR CONSTRUCTION	
CHRIS FALLBECK CITY OF CITRUS HEIGHTS	DATE
APPROVALS ARE GOOD FOR 12 MONTHS FROM DATE OF SIGNATURE	

APPROVED FOR CONSTRUCTION	
DIANA SCHMIDT SACRAMENTO METROPOLITAN FIRE DISTRICT	DATE
APPROVALS ARE GOOD FOR 12 MONTHS FROM DATE OF SIGNATURE	



SHEET INDEX

NO.	DESCRIPTION
SHEET 1 OF 11	COVER SHEET
SHEET 2 OF 11	GENERAL NOTES
SHEET 3 OF 11	ABBREVIATIONS AND LEGENDS
SHEET 4 OF 11	HIGHLAND 8" WATER MAIN STA 8+00-11+00
SHEET 5 OF 11	HIGHLAND 8" WATER MAIN STA 11+00-14+00
SHEET 6 OF 11	HIGHLAND 8" WATER MAIN STA 14+00-17+00
SHEET 7 OF 11	ROSA VISTA 8" WATER MAIN STA 20+00-24+00
SHEET 8 OF 11	ROSA VISTA 8" WATER MAIN STA 24+00-27+00
SHEET 9 OF 11	STANDARD DETAILS - 1
SHEET 10 OF 11	STANDARD DETAILS - 2
SHEET 11 OF 11	STANDARD DETAILS - 3

UTILITY REPRESENTATIVES			
CONTACT	UTILITY	COMPANY	PHONE
	U.S.A.	UNDERGROUND SERVICE ALERT	(800) 227-2600
KEN WEGER	COMMUNICATION	US SPRINT	(916) 207-8519
FOREST DECKER	TELEPHONE/BROADBAND	SUREWEST TELEPHONE	(916) 786-1226
DARREN HANSON	ELECTRIC	SMUD	(916) 732-5221
MISSY PIERI	WATER	CITRUS HEIGHTS WATER DISTRICT	(916) 735-7724
ROB ARMSTRONG	SEWER	SRCSD	(916) 876-6104
ROBERT ESPINOZA	SEWER	SASD	(916) 876-6386
CHRIS FALLBECK	DRAINAGE/ROADS/ENCROACHMENT	CITY OF CITRUS HEIGHTS	(916) 727-4770
PETE MISKOVICH	GAS	PG&E	(916) 386-5429
DIANA SCHMIDT	FIRE	SAC. METRO FIRE DEPARTMENT	(916) 727-4940



VICINITY MAP

NO SCALE

GRAPHIC SCALE

60' 0 30' 60' 120'

(IN FEET) 1 inch = 60 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

BASIS OF BEARINGS:

PER FOUND MONUMENTS HELD C/L OF HIGHLAND AVENUE AT N89°54'00" AS SHOWN ON 68 MAPS 19.

Know what's **below.**
Call before you dig.

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS		
NO.	DESCRIPTION	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO NO. C14686 CIVIL ★ STATE OF CALIFORNIA ★ 9/28/2017

WARREN CONSULTING ENGINEERS, INC.
11 KANALEY DRIVE, SUITE 101
EL DORADO HILLS, CA 95762 | (916) 985-1870

TITLE: COVER SHEET

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT &
ROSA VISTA LANE 8" WATER MAIN INSTALLATION
CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 1 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-1.DWG PLOTTED: Tuesday, September 26, 2017

CHWD IN SACRAMENTO METROPOLITAN FIRE DISTRICT NOTES

MAY 8, 2013

F-1. CONTACT THE SACRAMENTO METROPOLITAN FIRE DISTRICT FIRE PREVENTION BUREAU (PHONE (916) 859-4330) AND THE CITRUS HEIGHTS WATER DISTRICT (PHONE (916) 725-6873) PRIOR TO THE INSTALLATION OF FIRE HYDRANTS AND UPON STORAGE OF COMBUSTIBLE MATERIALS ON SITE.

F-2. FIRE HYDRANTS SHALL BE AMERICAN DARLING B84B OR MUELLER A-423 AND A MINIMUM BURY LENGTH OF FORTY-EIGHT INCHES (48") WITH A MECHANICAL JOINT INLET. FIRE HYDRANTS ARE TO BE FACTORY PAINTED RUSTOLEUM GLOSS WHITE. FIRE HYDRANT DRAIN HOLES SHALL BE PLUGGED AND VERIFIED BY CONTRACTOR AND DURING THE HYDROSTATIC PRESSURE TEST.

F-3. FIRE HYDRANT OUTLETS SHALL BE NATIONAL STANDARD THREADS WITH METAL PROTECTOR CAPS. ONE 4 1/2"-INCH "STEAMER"OUTLET AND TWO 2 1/2-INCH OUTLETS ARE REQUIRED.

F-4. FIRE HYDRANTS SHALL BE LOCATED AS SHOWN ON THE PLAN AS APPROVED BY THE FIRE DISTRICT WITH THE 4"-INCH OUTLET ROTATED TOWARD THE TRAFFIC LANE UNLESS OTHERWISE SPECIFIED. FIRE HYDRANTS SHALL BE INSTALLED WITH CENTERLINE OF OUTLETS A MINIMUM OF EIGHTEEN INCHES (18"), AND A MAXIMUM OF TWENTY INCHES (20") ABOVE FINISH GRADE. FIRE HYDRANTS SHALL BE PLACED BETWEEN EIGHTEEN INCHES (18") MINIMUM TO TWENTY-FOUR INCHES (24") MAXIMUM BEHIND THE SIDEWALK TO CENTERLINE.

F-5. THERE SHALL BE NO OBSTRUCTIONS, INCLUDING PLANTS, WITHIN A THIRTY-SIX INCH (36") RADIUS OF ANY FIRE HYDRANT. THERE SHALL BE A SEVEN FOOT (7') VERTICAL CLEARANCE ABOVE THE THIRTY-SIX INCH (36") CLEAR RADIUS AROUND ANY FIRE HYDRANT. CONCRETE ACCESS PADS ARE REQUIRED TO BE INSTALLED AROUND ALL FIRE HYDRANTS UNLESS OTHERWISE SPECIFIED BY THE PLANS OR DETAIL DRAWINGS.

F-6. FIRE HYDRANTS SHALL BE CLEANED OF ALL LOOSE DEBRIS AND PAINTED USING A MANUFACTURER'S RECOMMENDED PRIMER COAT AND FINISHED WITH A MINIMUM OF TWO (2) COATS OF RUSTOLEUM GLOSS WHITE ENAMEL.

F-7. PRESSURE SENSITIVE BLUE MARKERS SHALL BE INSTALLED FOR FIRE HYDRANTS TO FIRE DISTRICT SPECIFICATIONS.

F-8. ALL FIRE HYDRANTS SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION OR STORAGE OF COMBUSTIBLE MATERIALS ON THE SITE. THE HYDRANTS SHALL BE ACCESSIBLE VIA AN ALL-WEATHER DRIVING SURFACE, TEMPORARY OR OTHERWISE, DURING ALL PHASES OF CONSTRUCTION.

GENERAL NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PERMITS NECESSARY TO PERFORM THE WORK SHOWN ON THESE PLANS FROM APPROPRIATE AGENCIES.

2. THE CONTRACTOR SHALL PRACTICE SAFETY AT ALL TIMES AND SHALL FURNISH, ERECT AND MAINTAIN SUCH FENCES, BARRICADES, LIGHTS AND SIGNS NECESSARY TO GIVE ADEQUATE PROTECTION TO THE PUBLIC AT ALL TIMES. TEMPORARY TRAFFIC CONTROL SHALL BE APPROVED BY THE CITY.

3. INFORMATION SHOWN ON ALL EXISTING IMPROVEMENTS ON THESE DRAWINGS IS TAKEN FROM FIELD SURVEY AND AGENCY RECORDS. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL IMPROVEMENTS PRIOR TO BEGINNING OF WORK.

4. THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED PLANS AND SPECIFICATIONS FOR THIS PROJECT ON THE SITE AT ALL TIMES, AND CONTRACTOR SHALL BE FAMILIAR WITH ALL APPLICABLE STANDARDS AND SPECIFICATIONS.

5. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY, AND HOLD THE DISTRICT AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXEMPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ENGINEER.

6. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE ENGINEER SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY PRIOR TO COMMENCEMENT OF SAID WORK.

7. ALL DIMENSIONS ARE IN FEET AND TO THE CENTERLINE OF PIPE UNLESS OTHERWISE SHOWN. MEASUREMENTS ARE HORIZONTAL.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES AND FOR THE PROTECTION OF AND REPAIR OF DAMAGE TO THEM. CONTACT UNDERGROUND SERVICE ALERT, 1-800-642-2444, TWO (2) WORKING DAYS BEFORE WORK IS TO BEGIN.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES, FOR VERIFICATION AT THE SITE, OF ANY POSSIBLE CONFLICTS WITH THEIR UNDERGROUND UTILITIES AND THE PROPOSED IMPROVEMENTS AS SHOWN ON THESE IMPROVEMENT PLANS.

10. THE TYPES, LOCATIONS, SIZES AND DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. NEITHER THE CITRUS HEIGHTS WATER DISTRICT NOR IT'S CONSULTANT, WARREN CONSULTING ENGINEERS, CAN ASSUME THE RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UTILITIES NOR THE EXISTENCE OF OTHER BURIED OBJECTS OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE IMPROVEMENT PLANS.

11. CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE LATEST EDITION OF THE COUNTY OF SACRAMENTO "EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.

12. CONTRACTOR SHALL MAINTAIN SUFFICIENT EQUIPMENT, ON THE JOB SITE TO PROVIDE DUST CONTROL AT ALL TIMES. AREAS SURROUNDING THE WORK SHALL BE KEPT CLEAN AND RETURNED TO ORIGINAL CONDITIONS UPON COMPLETION OF THIS PROJECT.

CITRUS HEIGHTS WATER DISTRICT

NEW MAINLINE DISINFECTION/SAMPLING PROCEDURE

ADOPTED: OCTOBER 28, 2014

BEFORE PROJECT CONSTRUCTION BEGINS:

1. CHWD WATER QUALITY PERSONNEL SHALL SAMPLE FOR BOTH COLIFORM (PRESENCE/ABSENCE) AND HETEROTROPHIC PLATE COUNT (HPC) ON MAINS ADJACENT TO THE PROJECT. (SIMPLATE MAY BE SUBSTITUTED FOR HPC)

DURING PROJECT:

2. CHWD PROJECT MANAGEMENT PERSONNEL WILL PROVIDE A 24-HOUR NOTICE TO THE REGIONAL WATER QUALITY CONTROL BOARD FOR ALL FLUSHING EVENTS.

3. THE NEWLY CONSTRUCTED MAINS SHALL BE FILLED BY THE CONTRACTOR AND PURGED TO REMOVE ANY TRAPPED AIR USING THE DISTRICT-APPROVED AND TESTED BACKFLOW PREVENTION DEVICE SPECIFICATION. ALL BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED TO INSURE NO SEDIMENT OR CHLORINE REACHES ANY DRAIN INLET OR CREEK.

4. THE NEWLY CONSTRUCTED MAINS SHALL PASS THE DISTRICT PRESSURE CHECK REQUIREMENTS.

5. THE MAINS SHALL BE CHLORINATED AT 100 PPM FOR A MINIMUM OF 24 HOURS BY THE CONTRACTOR USING AN APPROVED CHLORINATION SPECIALIST.

6. THE CHLORINE CONCENTRATION SHALL BE CHECKED AFTER 24 HOURS AND A MINIMUM RESIDUAL OF 25 PPM MUST BE PRESENT THROUGHOUT THE NEW MAINS.

7. THE MAINS SHALL BE FLUSHED BY THE CONTRACTOR UNTIL THE CHLORINE CONCENTRATION MATCHES THE NORMAL SYSTEM RESIDUAL. ALL BEST MANAGEMENT PRACTICES SHALL BE FOLLOWED TO INSURE NO SEDIMENT OR CHLORINE REACHES ANY DRAIN INLET OR CREEK.

8. CHWD PROJECT MANAGEMENT PERSONNEL SHALL SUBMIT A SAMPLING PLAN TO THE OPERATIONS MANAGER FOR APPROVAL.

9. CHWD WATER QUALITY PERSONNEL, WHEN PRACTICAL, WILL COLLECT COLIFORM AND HPC SAMPLES ACCORDING TO THE APPROVED SAMPLING PLAN. THE SAMPLING SCHEDULE WILL BE SUBMITTED TO THE OPERATIONS MANAGER AND THE WATER QUALITY SUPERVISOR WITH AT LEAST A 24-HOUR NOTICE.

10. SAMPLES SHALL BE TAKEN FOR BOTH COLIFORM AND HETEROTROPHIC PLATE COUNT (HPC) AT 24 AND 48 HOUR INTERVALS AFTER COMPLETION OF FLUSHING.

11. CHWD PROJECT MANAGEMENT PERSONNEL SHALL SUBMIT NEGATIVE SAMPLE DOCUMENTATION TO OPERATIONS MANAGER FOR ACCEPTANCE PRIOR TO THE ANY CONNECTIONS TO THE CHWD DISTRIBUTION SYSTEM. SAMPLE RESULT DOCUMENTATION GENERALLY TAKES 3-5 BUSINESS DAYS AFTER SAMPLES ARE DELIVERED TO LAB.

12. CHWD WATER QUALITY PERSONNEL WILL SAMPLE MAINS DOWNSTREAM OF PROJECT FOR COLIFORM AND HPC AFTER THE NEW MAIN IS CONNECTED TO THE CHWD DISTRIBUTION SYSTEM.

CITRUS HEIGHTS WATER DISTRICT

TIMETABLE FOR DISINFECTION/SAMPLING PROCEDURE

ADOPTED: OCTOBER 28, 2014

THE CONTRACTOR SHALL ALLOW 8-10 BUSINESS DAYS FOR THE DISINFECTION/SAMPLING PROCEDURE PRIOR TO ANY CONNECTION TO THE DISTRICT'S DISTRIBUTION SYSTEM. LARGER SYSTEMS WILL REQUIRE ADDITIONAL TIME FOR CHLORINATION AND FLUSHING. BACTERIOLOGICAL SAMPLES SHALL ONLY BE COLLECTED BETWEEN 8:00AM AND 2:00PM MONDAY THROUGH THURSDAY. ANY POSITIVE RESULTS ON ANY SAMPLE TAKEN SHALL REQUIRE A REPEAT OF THE DISINFECTION/SAMPLING PROCEDURE UNTIL ALL SAMPLES TEST NEGATIVE. HPC SAMPLES REQUIRE A PLATE COUNT OF LESS THAN 500 ON ANY SAMPLE TAKEN.

1. DAY 1 – CHLORINATE NEW MAINS TO 100 PPM AND COMPLETE TO ALLOW FLUSHING TIME ON FOLLOWING DAY.

---24-HOUR CHLORINE DETENTION PERIOD---

2. DAY 2 – FLUSH NEW MAINS TO NORMAL RESIDUAL AND COMPLETE BEFORE 2:00PM. (SIMILAR TO SYSTEM RESIDUAL)

---24-HOUR SAMPLING DETENTION PERIOD---

3. DAY 3 – OBTAIN FIRST COLIFORM AND HPC SAMPLES BEFORE 2:00PM.

---24-HOUR SAMPLING DETENTION PERIOD---

4. DAY 4 – OBTAIN SECOND COLIFORM AND HPC SAMPLES BEFORE 2:00PM.

---3 TO 5 BUSINESS DAYS FOR LABORATORY TESTING AND REVIEW---

5. DAY 7-9 – SAMPLE DOCUMENTATION PROVIDED TO OPERATIONS MANAGER AND CUSTOMER NOTIFICATION OF SHUT-DOWN

---24-HOUR NOTIFICATION PERIOD---

6. DAY 8-10 – CONNECTION TO CHWD DISTRIBUTION SYSTEM ONLY AFTER CLEARANCE FROM OPERATIONS MANAGER IS RECEIVED.

CITRUS HEIGHTS WATER DISTRICT NOTES

SEPTEMBER 22, 2014

WS-1. THE WATER CONTRACTOR SHALL POSSESS A STATE OF CALIFORNIA CLASS "A" GENERAL ENGINEERING CONTRACTOR LICENSE AND SHALL MAINTAIN SAME THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE DISTRICT WITH VALID CONTRACTOR'S LICENSE INFORMATION INCLUDING LICENSE NUMBER, NAME OF LICENSE HOLDER, CLASSIFICATION AND EXPIRATION DATE. THE CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN CONSTRUCTING PUBLIC WATER DISTRIBUTION SYSTEMS.

WS-2. ALL MATERIALS AND INSTALLATION OF THE WATER DISTRIBUTION SYSTEM SHALL BE IN ACCORDANCE WITH THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITRUS HEIGHTS WATER DISTRICT.

WS-3. THE WATER CONTRACTOR SHALL BE IN RECEIPT OF THE APPROVED WATER PLAN PRIOR TO SCHEDULING A PRE-CONSTRUCTION CONFERENCE AND AT ALL TIMES DURING CONSTRUCTION.

WS-4. ALL APPLICABLE PROJECT DEVELOPMENT CHARGES AND FEES SHALL BE PAID PRIOR TO SCHEDULING A PRE-CONSTRUCTION CONFERENCE.

WS-5. CITRUS HEIGHTS WATER DISTRICT REQUIRES A CURRENT CERTIFICATE OF COMPLETION FOR TRAINING THAT QUALIFIES INDIVIDUALS TO PERFORM ASBESTOS CONSTRUCTION WORK WITH ASBESTOS CEMENT PIPE (ACP). THE APPROVED TRAINING MUST BE IN AGREEMENT WITH LOCAL, STATE AND FEDERAL REGULATIONS AND CITRUS HEIGHTS WATER DISTRICT'S ASBESTOS CEMENT PIPE SAFETY PLAN. ALL ASBESTOS MATERIALS SHALL BE LESS THAN FOUR FEET (4') LONG, PROPERLY DOUBLE WRAPPED WITH MINIMUM SIX-MIL (6-MIL) PLASTIC, SECURELY TAPED CLOSED WITH A CITRUS HEIGHTS WATER DISTRICT WARNING LABEL AFFIXED BETWEEN PLASTIC LAYERS, AND DELIVERED TO THE CITRUS HEIGHTS WATER DISTRICT FOR PROPER DISPOSAL.

WS-6. THE WATER CONTRACTOR SHALL CONTACT THE CITRUS HEIGHTS WATER DISTRICT FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION FOR A PRE-CONSTRUCTION CONFERENCE.

WS-7. LOCATION OF WATER FACILITIES SHALL BE ESTABLISHED AND STAKED BY A LICENSED CIVIL ENGINEER OR LAND SURVEYOR, INCLUDING FINISH GRADE AT FIRE HYDRANTS, MAIN VALVES, TEES, CROSSES, ANGLE POINTS, WATER SERVICES AND RELATED APPURTENANCES.

WS-8. THE WATER CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES MAINTAINED IN OR ACROSS A PUBLIC RIGHT-OF-WAY OR COMMON AREA. THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION OF NEW IMPROVEMENTS CONNECTING TO OR IN THE VICINITY OF SAME.

WS-9. THE WATER CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE STREET LIGHTING CONTRACTOR TO AVOID CONFLICTS IN PLACEMENT OF WATER AND STREET LIGHT SYSTEMS. WATER FACILITIES MUST CLEAR CONCRETE STREET LIGHT FOUNDATIONS BY A MINIMUM HORIZONTAL DISTANCE OF TWENTY-FOUR INCHES (24").

WS-10. ALL FACILITIES TO BE ACCEPTED BY THE DISTRICT SHALL BE LOCATED WITHIN DEDICATED EASEMENTS AND RIGHTS-OF-WAY. OWNERSHIP OF THE ACCEPTED SYSTEM SHALL PASS FROM THE OWNER TO CITRUS HEIGHTS WATER DISTRICT AT THE TIME OF WRITTEN ACCEPTANCE. THOSE PORTIONS NOT ACCEPTED BY THE DISTRICT ARE PRIVATE AND ARE TO BE MAINTAINED BY THE PROPERTY OWNER.

WS-11. WATER MAINS SHALL BE PLACED THREE FEET (3') FROM LIP OF GUTTER, IN STREET, UNLESS OTHERWISE SPECIFIED BY THE PLANS OR DETAIL DRAWINGS. WATER METERS SHALL BE PLACED BETWEEN EIGHTEEN INCHES (18") MINIMUM AND THIRTY INCHES (30") MAXIMUM BEHIND THE SIDEWALK AND A MAXIMUM OF THREE FEET (3') OFF THE SIDE PROPERTY LINE. FIRE HYDRANTS SHALL BE PLACED BETWEEN EIGHTEEN INCHES (18") MINIMUM AND TWENTY-FOUR INCHES (24") MAXIMUM BEHIND THE SIDEWALK TO CENTERLINE.

WS-12. MINIMUM COVER FOR WATER MAINS SHALL BE THIRTY-SIX INCHES (36") BELOW FINISH GRADE. DUCTILE IRON PIPE (DIP) SHALL BE USED WHEREVER COVER BECOMES LESS THAN THE MINIMUM SUBJECT TO PRIOR APPROVAL.

WS-13. WATER MAINS SHALL BE CL235 DR 18 AWWA C900-07 PVC OR PC350 DIP UNLESS OTHERWISE NOTED. PIPE SHALL BE FREE OF DEFECTS AND DISCOLORATION. FIRE HYDRANT LATERALS SHALL BE PC350 DIP UNLESS OTHERWISE NOTED. POLYVINYLCHLORIDE (PVC) PIPE SHALL HAVE BEEN MANUFACTURED WITHIN EIGHTEEN (18) MONTHS PRIOR TO INSTALLATION.

WS-14. WATER MAINS IN THE PIPE ZONE SHALL BE BACKFILLED WITH NO. 2 WASHED SAND COMPACTED TO A RELATIVE COMPACTION OF NOT LESS THAN NINETY PERCENT (90%) TO A MINIMUM OF SIX INCHES (6") BELOW AND TWELVE INCHES (12") ABOVE THE MAIN. BACKFILL SHALL BE DEVOID OF DEBRIS AND CONCRETE, PAVEMENT, STONES, SOLID EARTH CHUNKS AND PARTICULATE LARGER THAN THREE INCHES (3") IN GREATEST DIMENSION. WITHIN EXISTING ROADWAYS AND EXISTING TRAFFIC AREAS, THE REMAINING TRENCH BACKFILL ABOVE THE SAND SHALL ALL BE THREE-QUARTER-INCH (3/4") CLASS 2 AGGREGATE BASE COMPACTED TO CITY/COUNTY ROADWAY REQUIREMENTS.

WS-15. THE METHODS FOR OBTAINING COMPACTION SHALL BE AS SPECIFIED BY THE MOST CURRENT EDITIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK") AND THE COUNTY OF SACRAMENTO PUBLIC WORKS STANDARD CONSTRUCTION SPECIFICATIONS. NUCLEAR DENSITY METER TESTING BY A LICENSED GEOTECHNICAL ENGINEER IN ACCORDANCE WITH ASTM STANDARD TEST METHODS FOR LABORATORY COMPACTION SHALL BE REQUIRED OF THE CONTRACTOR FOR IN-PLACE SOIL AND THREE-QUARTER-INCH (3/4") CLASS 2 AGGREGATE BASE.

WS-16. A NO. 10 INSULATED COPPER LOCATOR WIRE SHALL BE AFFIXED TO WATER MAINS, FIRE HYDRANTS, MAIN AND HYDRANT VALVES, AND APPURTENANCES. THE WIRE SHALL BE AFFIXED TO THE TOP OF PIPE WITH TEN-MIL (10 MIL) VINYL TAPE EVERY FIVE FEET (5'). THE CONTRACTOR SHALL CONDUCT A CONTINUITY TEST ON ALL LOCATOR WIRE SPLICES. A MINIMUM OF TWO (2) STRANDS OF THREE INCH (3") WIDE NON-DETECTABLE BLUE TAPE MARKED "WATER" SHALL BE PLACED TWELVE INCHES (12") ABOVE MAIN AND SERVICE PIPING AT THE TRENCH EDGES.

WS-17. ALL AWWA KEY-OPERATED VALVES TWELVE INCH (12") AND SMALLER SHALL BE EPOXY-COATED RESILIENT WEDGE GATE VALVES (RWGV) UNLESS OTHERWISE SPECIFIED. VALVES FOURTEEN INCHES (14") AND LARGER SHALL BE EPOXY-COATED BUTTERFLY VALVES (BFV) UNLESS OTHERWISE SPECIFIED. MAIN AND HYDRANT VALVES SHALL BE FLANGED TO FITTINGS UNLESS OTHERWISE NOTED.

WS-18. EACH LOT SHALL BE PROVIDED WITH A ONE INCH (1") METERED WATER SERVICE UNLESS OTHERWISE SPECIFIED. WATER SERVICES SHALL BE POLYETHYLENE TUBING, UNLESS OTHERWISE SPECIFIED, WITH LEAD FREE BRASS COMPRESSION CONNECTIONS AND FITTINGS. SERVICE SADDLES SHALL BE BRONZE.

WS-19. ALL MAIN VALVES AND FIRE HYDRANT VALVES SHALL BE PROVIDED WITH AN OLDCASTLE PRECAST NO. G04 TRAFFIC VALVE BOX AND NO. G04C CAST IRON LID MARKED "WATER." THE TRIANGULAR LID SHALL POINT IN THE DIRECTION OF THE WATER MAIN THAT IS ISOLATED BY THE VALVE. THE VALVE OPERATING NUT SHALL BE FULLY ACCESSIBLE AND CENTERED IN THE VALVE ACCESS RISER. MAIN VALVES, SERVICE VALVES, AND BLOW-OFF VALVE BOXES SHALL AVOID CONFLICTS WITH CURBS, GUTTERS, SIDEWALKS AND DRIVEWAYS UNLESS APPROVED BY THE DISTRICT, AND BE VISIBLE AND ACCESSIBLE AFTER YARD GRADING/LANDSCAPING IS COMPLETED BY THE CONTRACTOR/DEVELOPER.

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

NO.	DESCRIPTION	DATE
	REVISIONS	

DESIGNED: AT
DRAWN: MIL
CHECKED: AT
DATE: 09-26-17

REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO NO. C14866 CIVIL ★ STATE OF CALIFORNIA
9/26/2017

WARREN CONSULTING ENGINEERS, INC.
3301 C STREET, SUITE 100-B
EL DORADO HILLS, CA 95762 | (916) 985-1870

TITLE: GENERAL NOTES

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT &
ROSA VISTA LANE 8" WATER MAIN INSTALLATION
CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 2 OF 11

FILENAME:I:\16-157\CIVIL\DWG\16-157-2.DWG PLOTTED: Tuesday, September 26, 2017

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

ABS	ACRYLONITRILE BUTADIENE STYRENE
AC	ASPHALTIC CONCRETE
ACP	ASBESTOS CEMENT PIPE
ADP	ADAPTER
APN	ASSESSOR'S PARCEL NUMBER
ARV	AIR RELEASE VALVE
BOL	BOLLARD
BOV	BLOW-OFF VALVE
C	COMMUNICATION
CL	CENTERLINE
CATV	CABLE TELEVISION
CB	CATCH BASIN
CL	CLASS
C.L.F.	CHAIN LINK FENCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC.	CONCRETE
CPF	CONTROL POINT FOUND
CS	CONCRETE SURFACE
CU	COPPER
D	DEPTH
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DRWY	DRIVEWAY
DWG	DRAWING
E	ELECTRIC, EAST
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX	EXISTING
FH	FIRE HYDRANT
FL	FLOWLINE, FLANGE
FO	FIBER OPTIC
G	GAS
GB	GRADE BREAK
GR	GRATE
GRD	GRADE ELEVATION
GROD	GROUND ROD
GV	GAS VALVE
HP	HIGH PRESSURE
HVE	HIGH VOLTAGE ELECTRIC
ICP	IRRIGATION CONTROL PANEL
ICV	IRRIGATION CONTROL VALVE
INV	PIPE INVERT ELEVATION
IRR	IRRIGATION
JP	JOINT UTILITY POLE
JT	JOINT TRENCH
LF	LINEAL FEET
LNDG	LANDING
LVE	LOW VOLTAGE ELECTRIC
M.	METAL
MH	MANHOLE
MIN	MANHOLE
MH	MINIMUM
MJ	MECHANICAL JOINT
N	NORTH
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OHANG	OVERHANG
OIP	OPEN IRON PIPE
OSPH	OLD STEEL POST HOLE
P/L	PROPERTY LINE
PA	PLANTER AREA
PC	PRESSURE CLASS
PD	PLANTER DRAIN
PH	POSTHOLE, POTHOLE
PIV	POST INDICATOR VALVE
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
RCG	ROLLED CURB AND GUTTER
RCP	REINFORCED CONCRETE PIPE
RIM	MANHOLE RIM ELEVATION
ROW	RIGHT OF WAY
RWALL	RETAINING WALL
S	SOUTH
S/W	SIDEWALK
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SIG	SIGNAL
SL	STREET LIGHT
SLB	STREET LIGHT BOX
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
STL.	STEEL
T	TELEPHONE
TBALL	TETHER BALL POLE
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
T.O.P.	TOP OF PIPE
TOW	TOP OF WALL
TRW	TOP OF RETAINING WALL
UG	UNDERGROUND
UNK	UNKNOWN
VCP	VITRIFIED CLAY PIPE
W	WATER, WEST
W/	WITH
W/O	WITHOUT
WD.	WOOD
W.I.F.	WROUGHT IRON FENCE
W.M.	WATER MAIN
XWALK	CROSSWALK

EXISTING TOPOGRAPHY

= PROPERTY LINE
= CENTERLINE
= EASEMENT
= PROPERTY CORNER FOUND AS NOTED
= PROPERTY CORNER NOTHING FOUND OR SET
= TEMPORARY BENCHMARK (SEE TBM LIST FOR INFO)
= SWALE OR DRAINAGE FLOW
= DRAINAGE FLOW
= FENCE (TYPE NOTED)
= TREE (SIZE/TYPE INDICATED)
= SLOPE
= CONTOUR
= CONCRETE SURFACE
= EDGE OF ASPHALT
= EDGE OF BUILDING
= SIGN
= POST OR BOLLARD
= GROUND ELEVATION
= HARD SURFACE ELEVATION

TBM LIST

NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CPS CHISELED "+"	9996.66	10000.72	156.42
2	CPS PICKER	10032.71	10999.07	187.68
3	CPF NAIL AT DEERFIELD/HIGHLAND	10019.52	10780.46	175.42
4	CPF OIP PACHECO/HIGHLAND	10018.32	10092.86	57.45
5	CPS CHISELED "+"	10042.99	9680.85	153.44
6	CPS PK NAIL	10021.00	8645.61	146.74
7	CPF RR SPIKE MAR/HIGHLAND	10019.98	8657.25	146.88
8	CPS PK NAIL	10580.07	10008.29	170.46
9	CPS PICKER	10030.38	10342.92	158.47
10	CPF OIP	10037.85	10331.66	159.22
11	CPS CHISELED "+"	9997.87	10675.83	168.78
12	CPF 2" OIP	10682.12	10011.09	174.02
13	CPF OIP	10037.59	9676.69	153.24
14	CPF OIP	10034.39	9499.38	152.79
15	CPF OIP	10037.36	9482.35	152.95
16	CPF NAIL	10016.96	9300.46	151.47
18	CPF OIP	10018.02	9968.02	156.41
19	CPF OIP	10682.29	10032.05	0.00

PROPOSED SYMBOLS:

8" W — WATER LINE & SIZE
GATE VALVE
FH — FIRE HYDRANT ASSEMBLY
M — WATER METER
8" SD — STORM DRAIN LINE (SIZE AND FLOW SHOWN)
STORM DRAIN MANHOLE (SDMH)
DROP INLET (DI)

EXISTING UTILITIES

= STORM DRAIN LINE (SIZE & DIRECTION OF FLOW)
= STORM DRAIN LINE (RECORD INFORMATION)
= STORM DRAIN LINE (UNDERGROUND LOCATING)
= STORM DRAIN MANHOLE
= STORM DRAIN CLEANOUT
= DROP INLET
= AREA DRAIN
= RAIN WATER LEADER
= DOWNSPOUT
= SANITARY SEWER LINE (SIZE & DIRECTION OF FLOW)
= SANITARY SEWER LINE (RECORD INFORMATION)
= SANITARY SEWER LINE (UNDERGROUND LOCATING)
= SANITARY SEWER MANHOLE
= SANITARY SEWER CLEANOUT
= WATER LINE (SIZE INDICATED)
= WATER LINE (RECORD INFORMATION)
= WATER LINE (UNDERGROUND LOCATING)
= WATER MANHOLE
= WATER VALVE
= WATER METER
= WATER BOX
= IRRIGATION CONTROL VALVE
= FIRE HYDRANT
= BACKFLOW PREVENTER
= SPRINKLER
= HOSE BIBB
= BLOWOFF VALVE
= OVERHEAD ELECTRIC LINE
= UNDERGROUND ELECTRIC LINE
= UNDERGROUND ELECTRIC LINE (RECORD INFORMATION)
= UNDERGROUND ELECTRIC LINE (UNDERGROUND LOCATING)
= ELECTRIC MANHOLE
= UTILITY POLE (WITH GUY WIRE)
= ELECTRIC METER
= ELECTRIC BOX
= STREET LIGHTING BOX
= LIGHT STANDARD
= SIGNAL LIGHT
= FLOOD LIGHT
= ELECTRICAL OUTLET
= GAS LINE (SIZE INDICATED)
= GAS LINE (RECORD INFORMATION)
= GAS LINE (UNDERGROUND LOCATING)
= GAS MANHOLE
= GAS VALVE
= GAS METER
= TELEPHONE LINE
= TELEPHONE LINE (RECORD INFORMATION)
= TELEPHONE LINE (UNDERGROUND LOCATING)
= STORM DRAIN BOX
= TRAFFIC SIGNAL BOX
PHX = POTHOLE X

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS

NO.	DESCRIPTION	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO NO. C14686 ★ STATE OF CALIFORNIA — CIVIL — 9/28/2017

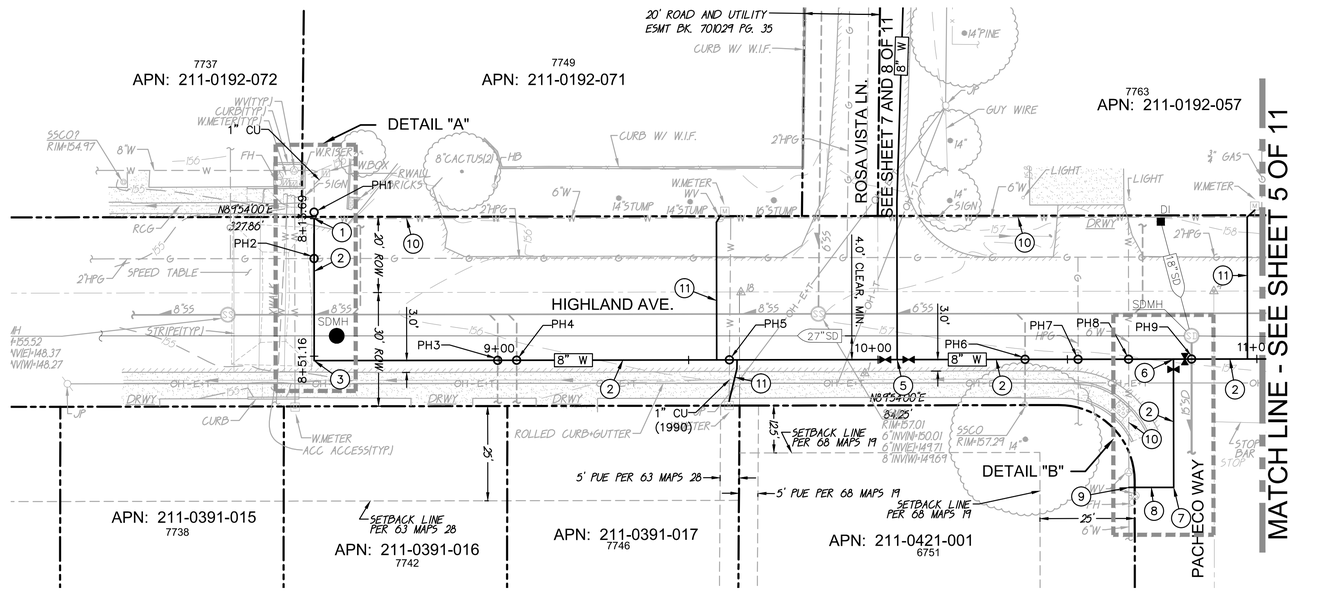
WARREN CONSULTING ENGINEERS, INC.
11 HOTALING PLACE, SUITE 5
EL DORADO HILLS, CA 95762 | (916) 985-1870

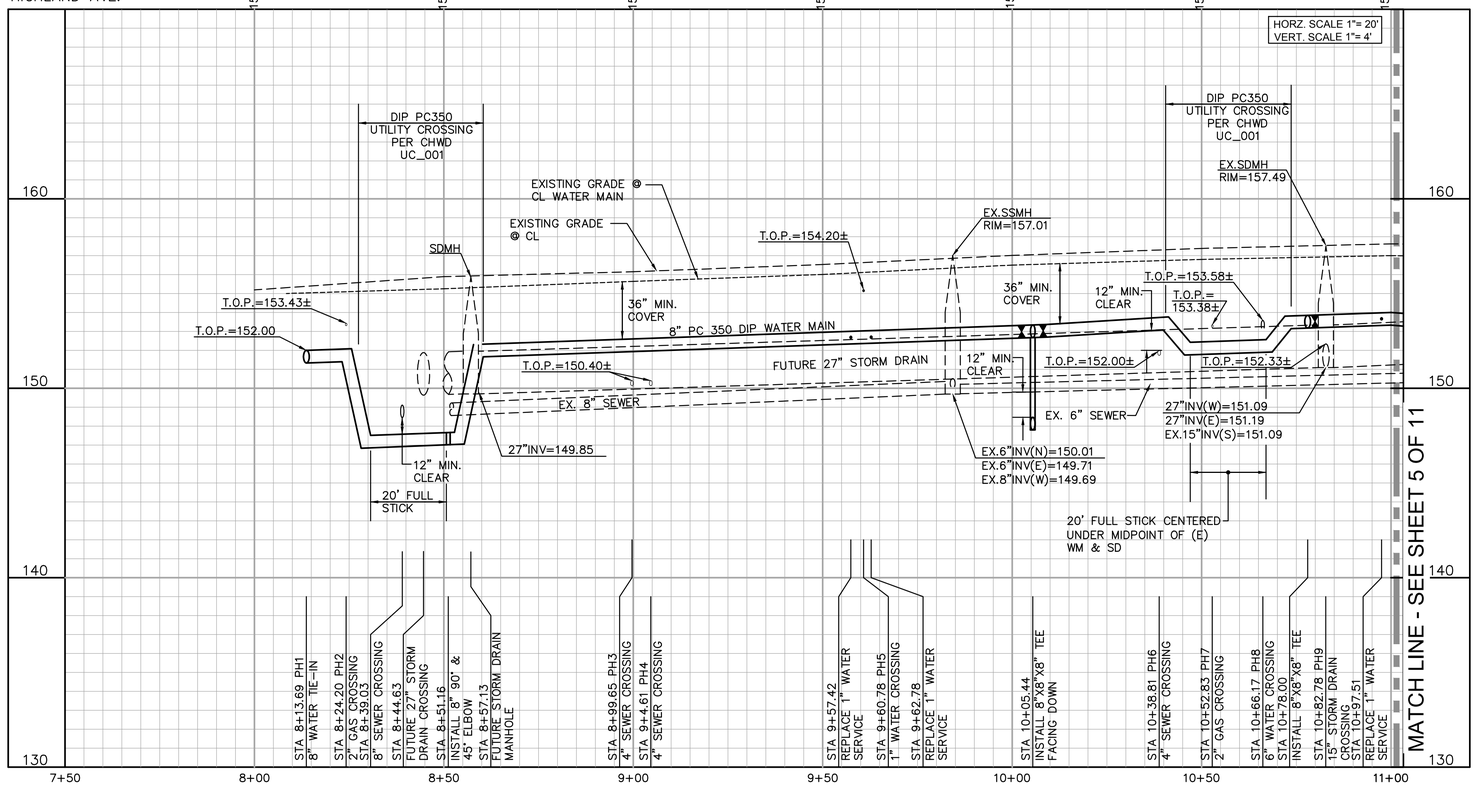
TITLE: ABBREVIATIONS AND LEGENDS

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT &
ROSA VISTA LANE 8" WATER MAIN INSTALLATION
CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 3 OF 11

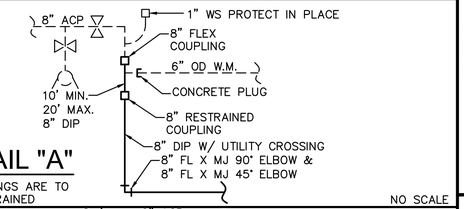
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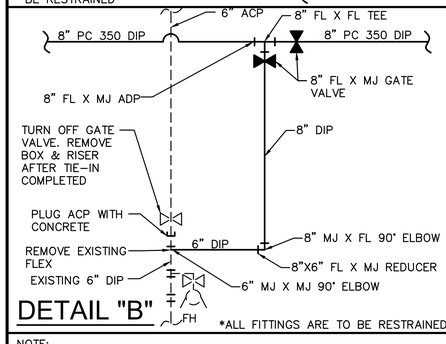
CONSTRUCTION NOTES

1. CONNECT TO EXISTING 8" ACP WATER MAIN. INSTALL 8" FLEXIBLE COUPLING.
2. INSTALL 8" PC350 DIP WATER MAIN PER CHWD DETAIL TREN_711 AND TREN_713CH.
3. INSTALL 8" FL X MJ 90 DEGREE ELBOW WITH MJ FACING NORTH AND 8" FL X MJ 45 DEGREE ELBOW TO THE EAST FACING UP.
4. INSTALL 8"X8" FL X MJ TEE FACING DOWN WITH 8" FL X MJ RW GATE VALVES TO EAST AND WEST. INSTALL VERTICAL 8" PC350 DIP AS NEEDED TO MAINTAIN MINIMUM 12" CLEAR BENEATH SD AND SS MAINS TO NORTH.
5. INSTALL 8"X8" MJ X MJ 90 DEGREE ELBOW FACING NORTH AT LOWER END OF VERTICAL 8" PC350 DIP.
6. INSTALL 8"X8" FL X FL TEE WITH 8" FL X MJ RW GATE VALVE TO EAST AND SOUTH. INSTALL 8" FL X MJ ADAPTOR TO WEST.
7. INSTALL 8" MJ X FL 90 DEGREE ELBOW WITH 8"X6" FL X MJ REDUCER TO THE WEST.
8. INSTALL 6" PC 350 DIP WATER MAIN PER CHWD DETAIL TREN_713CH.
9. CONNECT TO EXISTING 6" DIP WATER MAIN. REMOVE EXISTING 6" FLEX AND INSTALL 6" MJ X MJ 90 DEGREE ELBOW.
10. EXISTING WATER MAIN TO BE ABANDONED IN PLACE. REMOVE AND PLUG WATER MAIN WHERE NECESSARY TO INSTALL NEW WATER FACILITIES.
11. REPLACE 1" WATER SERVICE PER CHWD DETAIL WS_108PE. CONNECT TO EXISTING 1" METER SETTER.



DETAIL "A"

*ALL FITTINGS ARE TO BE RESTRAINED — NO SCALE



DETAIL "B"

*ALL FITTINGS ARE TO BE RESTRAINED — NO SCALE

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING THESE LISTED POTHOLE LOCATIONS AND ANY ADDITIONAL LOCATIONS PRIOR TO CONSTRUCTION. ADD POTHOLE DATA TO PLAN SET AS PART OF AS-BUILTS.

EXISTING POTHOLE DATA

POTHOLE #	DESCRIPTION	PIPE TYPE	DEPTH TO TOP OF PIPE
PH1	(E) 8" ACP WATER MAIN @ TIE-IN 7737 HIGHLAND AVE.	ACP	37"
PH2	2" HP GAS 7737 HIGHLAND AVE.	STL	29"
PH3	4" SS TO 7742 HIGHLAND AVE.	ABS	63"
PH4	4" SS TO 7746 HIGHLAND AVE.	ABS	63"
PH5	1" WS TO 7746 HIGHLAND AVE.	CU	24"
PH6	4" SS TO 6751 PACHECO WAY	VCP	57"
PH7	2" HP GAS TO SOUTH TOWARD 6751 PACHECO WAY	STL	41"
PH8	6" WATER MAIN PACHECO WAY	ACP	41"
PH9	15" SD CROSSING PACHECO WAY	RCP	56"

GRAPHIC SCALE
20' 0 10' 20' 40'
(IN FEET) 1 inch = 20 feet
NORTH
THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS	NO.	DESCRIPTION	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

PROFESSIONAL ENGINEER — REGISTERED — ANTHONY J. PASSANO NO. C46686 CIVIL — STATE OF CALIFORNIA — 9/28/2017

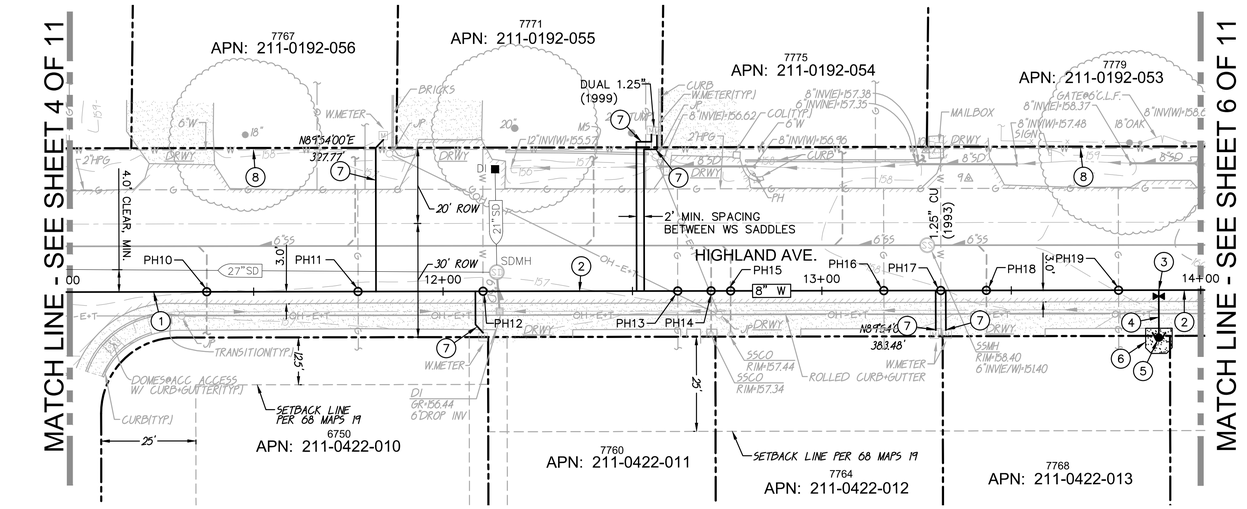
WARREN CONSULTING ENGINEERS, INC.
2175 FOREST AVENUE, SUITE 10
EL DORADO HILLS, CA 95762 | (916) 985-1870

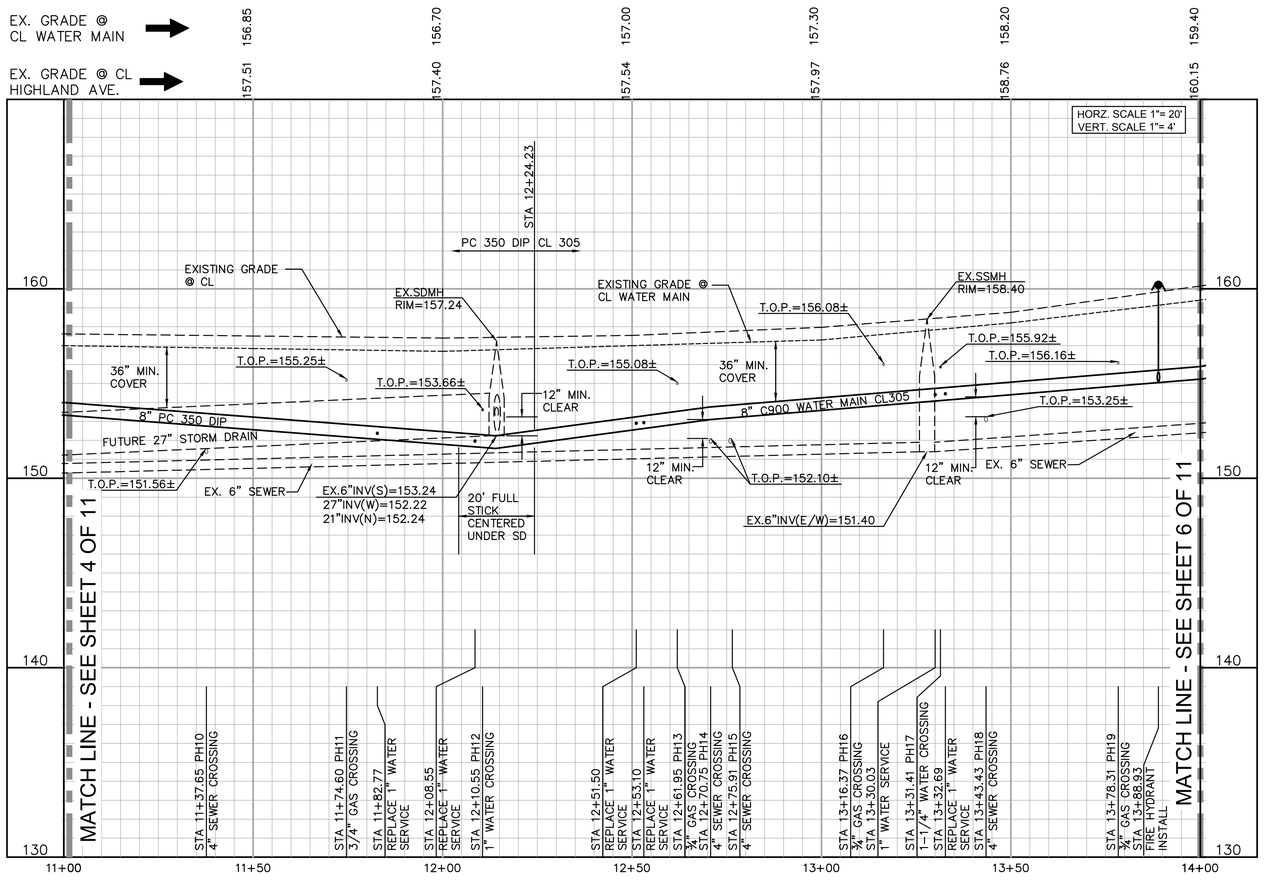
TITLE: HIGHLAND 8" WATER MAIN STA 8+00 - 11+00

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT & ROSA VISTA LANE 8" WATER MAIN INSTALLATION
CITRUS HEIGHTS - SACRAMENTO COUNTY — CALIFORNIA

SHEET NO. 4 OF 11

FILENAME:I:\16-157\CIVIL\DWGS\16-157-4-6.DWG PLOTTED: Tuesday, September 26, 2017





CONSTRUCTION NOTES

1. INSTALL 8" PC350 DIP WATER MAIN PER CHWD DETAIL TREN_713CH.
2. INSTALL 8" AWWA C900 PVC CL 305 WATER MAIN PER CHWD DETAIL TREN_713CH.
3. INSTALL 8"X6" MJ X FL TEE WITH 6" FL X MJ RW GATE VALVE TOWARD FIRE HYDRANT.
4. INSTALL 6" PC350 DIP WATER MAIN PER CHWD DETAIL TREN_713CH.
5. INSTALL FIRE HYDRANT PER CHWD DETAIL FH_612.
6. INSTALL FIRE HYDRANT CONCRETE ACCESS PAD PER CHWD DETAIL FH_683.
7. REPLACE 1" WATER SERVICE PER CHWD DETAIL WS_108PE. CONNECT TO EXISTING 1" METER SETTER.
8. EXISTING 8" WATER MAIN TO BE ABANDONED IN PLACE. REMOVE AND PLUG WATER MAIN WHERE NECESSARY TO INSTALL NEW WATER FACILITIES.

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING THESE LISTED POTHOLE LOCATIONS AND ANY ADDITIONAL LOCATIONS PRIOR TO CONSTRUCTION. ADD POTHOLE DATA TO PLAN SET AS PART OF AS-BUILTS.

EXISTING POTHOLE DATA

POTHOLE #	DESCRIPTION	PIPE TYPE	DEPTH TO TOP OF PIPE
PH10	4" SS TO 6750 PACHECO WAY	ABS	64"
PH11	3/4" GAS TO 6750 PACHECO WAY	STL	18"
PH12	1" CU WS TO 7760 HIGHLAND AVE.	CU	36"
PH13	3/4" GAS TO 7760 HIGHLAND AVE.	STL	23"
PH14	4" SS TO 7760 HIGHLAND AVE.	ABS	60"
PH15	4" SS TO 7764 HIGHLAND AVE.	ABS	60"
PH16	3/4" GAS TO 7764 HIGHLAND AVE.	STL	18"
PH17	1-1/4" CU WS TO 7764 & 7768	CU	23"
PH18	4" SS TO 7768 HIGHLAND AVE.	VCP	57"
PH19	3/4" GAS TO 7768 HIGHLAND AVE.	STL	22"

GRAPHIC SCALE

20' 0 10' 20' 40'
(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS

NO.	DESCRIPTION	DATE

DESIGNED: AT
DRAWN: MIL
CHECKED: AT
DATE: 09-26-17

PROFESSIONAL ENGINEER ★ REGISTERED ★ ANTHONY J. TASSANO NO. C74696 ★ STATE OF CALIFORNIA ★ CIVIL 9/28/2017

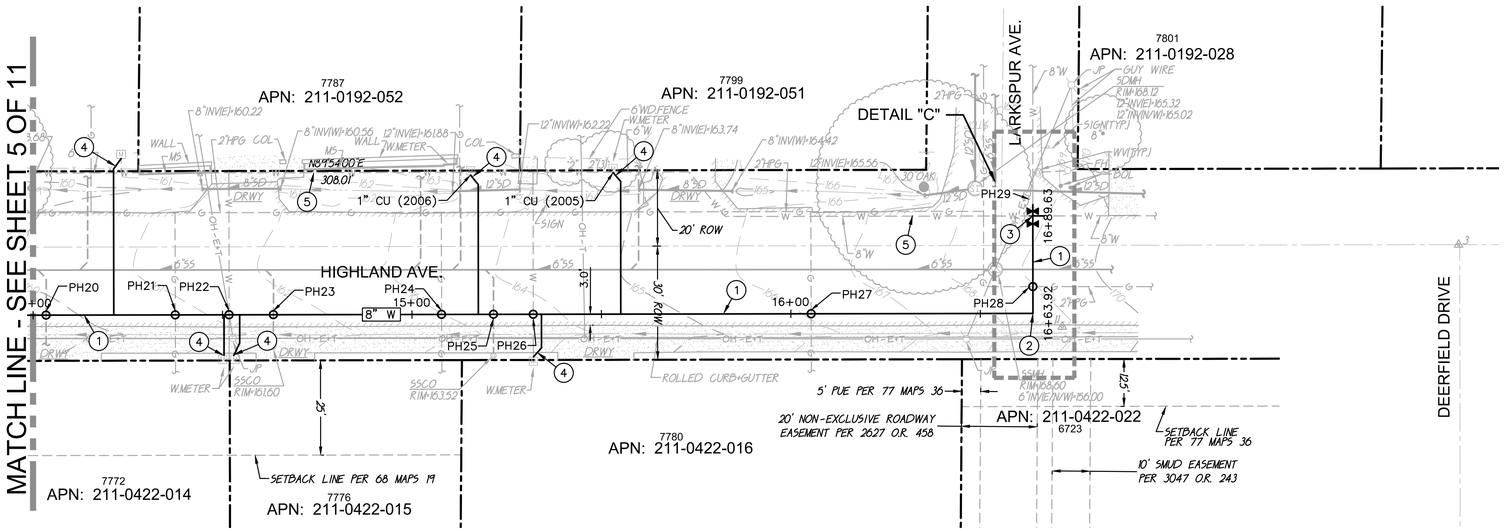
WARREN CONSULTING ENGINEERS, INC.
3788 MCALISTER AVE. | SUITE 101
EL DORADO HILLS, CA 95762 | (916) 985-1870

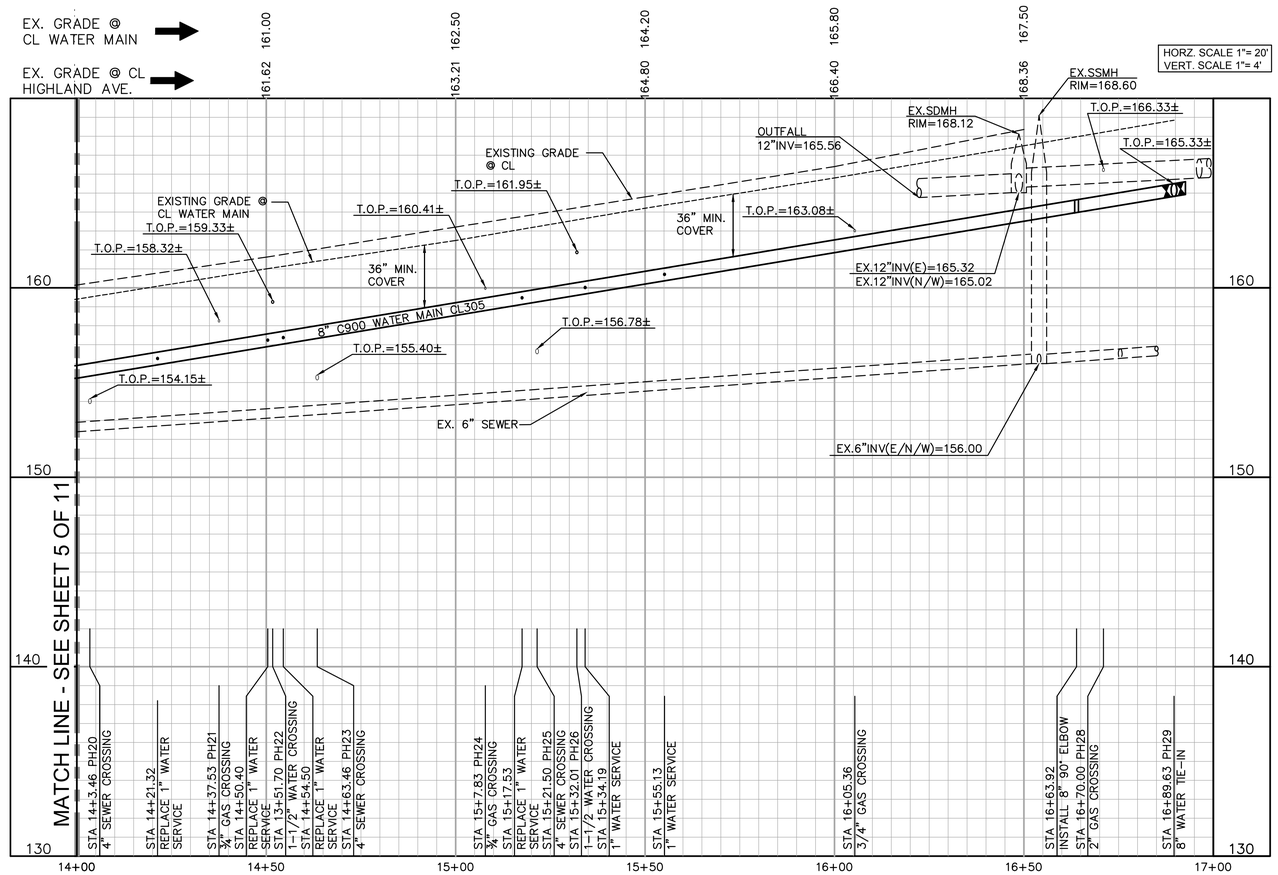
TITLE: HIGHLAND 8" WATER MAIN STA 11+00 - 14+00

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT & ROSA VISTA LANE 8" WATER MAIN INSTALLATION
CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 5 OF 11

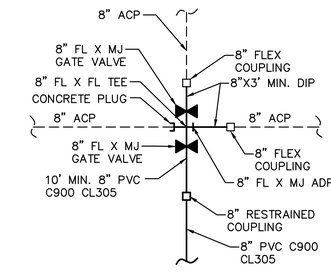
FILENAME: I:\16-157\CIVIL\DWG\16-157-4-6.DWG PLOTTED: Tuesday, September 26, 2017





CONSTRUCTION NOTES

1. INSTALL 8" AWWA C900 PVC CL 305 WATER MAIN PER CHWD DETAIL TREN_713CH.
2. INSTALL 8" MJ X MJ 90 DEGREE ELBOW.
3. CONNECT TO EXISTING 8" AC WATER MAIN. REMOVE EXISTING 8" CROSS AND INSTALL 8"X8" FL X FL TEE WITH 8" FL X MJ RW GATE VALVE TO NORTH AND SOUTH. INSTALL 8" X 3' MIN PE X PE DIP WITH 8" FLEX COUPLING TO NORTH AND EAST. PLUG ABANDONED 8" AC WATER MAIN TO WEST.
4. REPLACE 1" WATER SERVICE PER CHWD DETAIL WS_108PE. CONNECT TO EXISTING 1" METER SETTER.
5. EXISTING 8" WATER MAIN TO BE ABANDONED IN PLACE. REMOVE AND PLUG WATER MAIN WHERE NECESSARY TO INSTALL NEW WATER FACILITIES.



DETAIL "C"

NO SCALE

*ALL FITTINGS ARE TO BE RESTRAINED

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING THESE LISTED POTHOLE LOCATIONS AND ANY ADDITIONAL LOCATIONS PRIOR TO CONSTRUCTION. ADD POTHOLE DATA TO PLAN SET AS PART OF AS-BUILTS.

EXISTING POTHOLE DATA

POTHOLE #	DESCRIPTION	PIPE TYPE	DEPTH TO TOP OF PIPE
PH20	6" SS TO 7772 HIGHLAND AVE.	VCP	63"
PH21	3/4" GAS TO 7772 HIGHLAND AVE.	STL	25"
PH22	1-1/2" WS TO 7772 & 7776	GALV	20"
PH23	4" SS TO 7776 HIGHLAND AVE.	VCP	72"
PH24	3/4" GAS TO 7776 HIGHLAND AVE.	STL	31"
PH25	4" SS TO 7780 HIGHLAND AVE.	VCP	77"
PH26	1-1/2" WS TO 7780 HIGHLAND AVE.	GALV	21"
PH27	3/4" GAS TO 7780 HIGHLAND AVE.	STL	35"
PH28	2" GAS @ HIGHLAND & LARKSPUR	STL	32"
PH29	8" ACP WM TIE-IN @ HIGHLAND & LARKSPUR	ACP	41"

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS		
NO.	DESCRIPTION	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

PROFESSIONAL ENGINEER ★ REGISTERED ★ STATE OF CALIFORNIA
ANTHONY J. TASSANO NO. C74686 CIVIL
9/28/2017

WARREN CONSULTING ENGINEERS, INC.
3301 C STREET, SUITE 100-B
EL DORADO HILLS, CA 95762 | (916) 985-1870

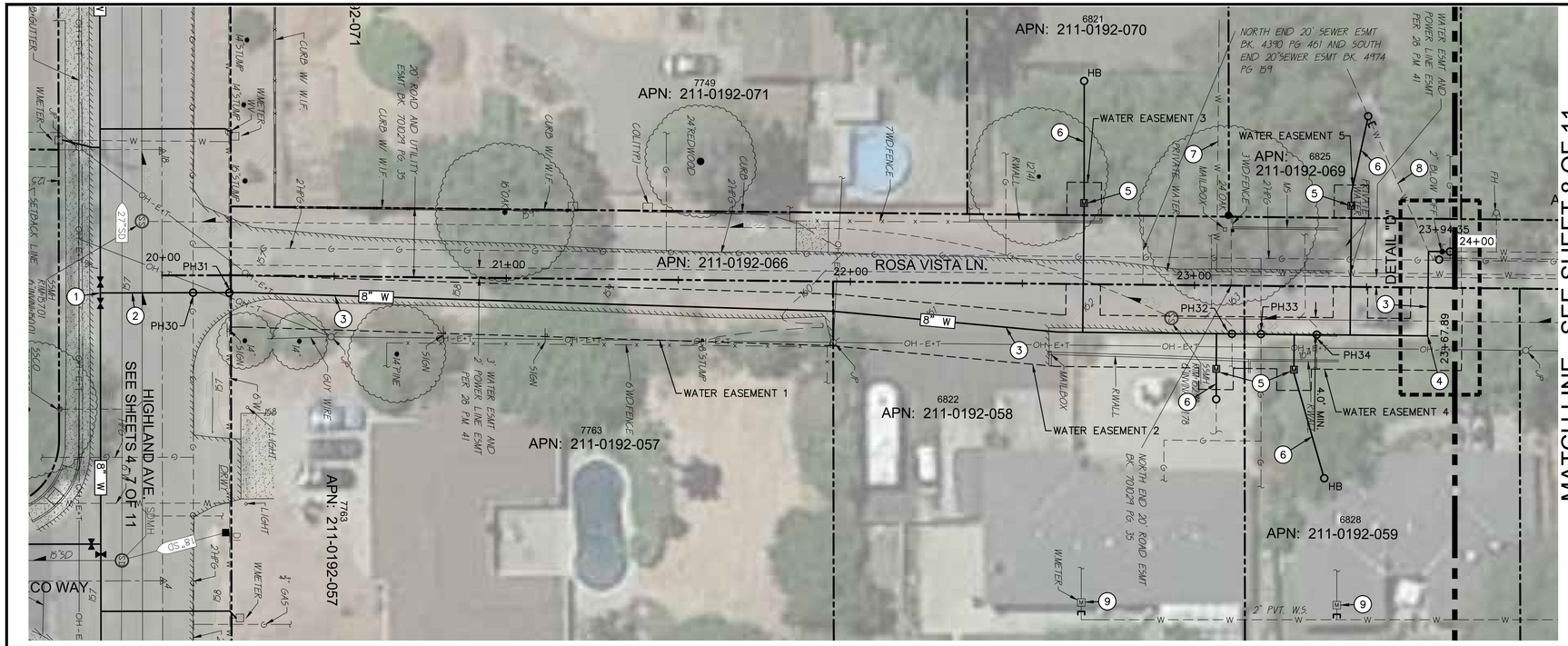
TITLE: HIGHLAND 8" WATER MAIN STA 14+00 - 17+00

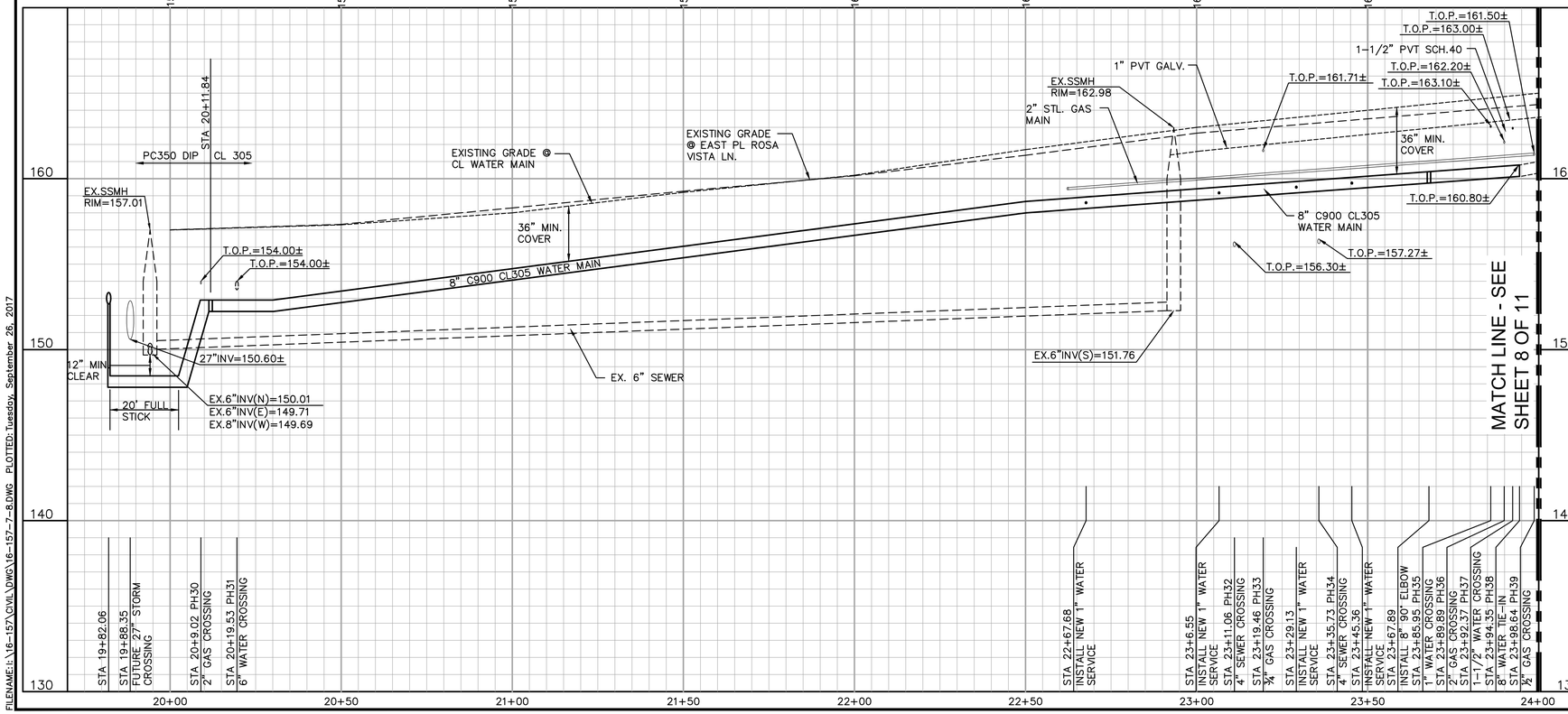
PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT & ROSA VISTA LANE 8" WATER MAIN INSTALLATION

CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 6 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-4-6.DWG PLOTTED: Tuesday, September 26, 2017



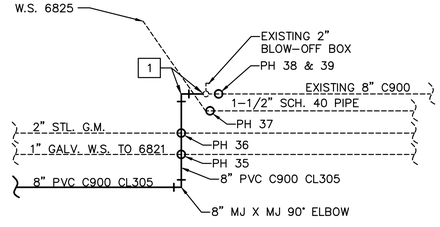


CONSTRUCTION NOTES

1. CONNECT TO 8" MJ X MJ 90 DEGREE ELBOW AT LOWER END OF VERTICAL 8" PC350 DIP FROM SHEET 4 NOTES ITEM NUMBER 5.
2. INSTALL 8" PC350 DIP WATER MAIN PER CHWD DETAIL TREN_713CH.
3. INSTALL 8" AWWA C900 PVC CL305 WATER MAIN PER CHWD DETAIL TREN_713CH.
4. INSTALL 8" MJ X MJ 90 DEGREE ELBOW.
5. INSTALL 1" METERED WATER SERVICE PER CHWD DETAIL WS_102PE. RELOCATE EXISTING METER TO NEW METER BOX LOCATION.
6. CONNECT NEW METERED WATER SERVICE TO HOUSE OR EXISTING WATER SERVICE AT LOCATION INDICATED ON THE PLANS PER CHWD DETAIL WS_102PE. PLACE #10 INSULATED COPPER WIRE FROM NEW METER LOCATION TO NEW HOUSE VALVE OR NEW CONNECTION POINT (TIE INTO EXISTING WIRE). CONNECTION MATERIAL TO DWELLING SHALL MATCH PLUMBING OF DWELLING OR GALVANIZED PIPE AS APPROPRIATE.
7. ABANDON EXISTING 1" WATER SERVICE. WHERE EXISTING WATER SERVICE ENTERS HOUSE CAP SERVICE A MINIMUM OF 10' FROM STRUCTURE TO MAINTAIN GROUND.
8. ABANDON EXISTING 1" WATER SERVICE. CAP EXISTING WATER SERVICE.
9. ABANDON EXISTING WATER SERVICE. REMOVE EXISTING METER BOX AND PIPING. CAP EXISTING WATER SERVICE AND BACKFILL TO 90% COMPACTION. WHERE EXISTING WATER SERVICE ENTERS HOUSE CAP SERVICE A MINIMUM OF 10' FROM STRUCTURE TO MAINTAIN GROUND.

NORTH

8" W.M. - TIE-IN DETAIL @ 6825 ROSA VISTA LANE



1 CONNECT TO EXISTING 8" PVC WATER MAIN. REMOVE 2" BLOW-OFF INCLUDING 8"X2" CAP AND THRUST BLOCK. INSTALL 8" MJ SLEEVE WITH 8"X3' MIN. PE X PE PVC C900 CL305. INSTALL 8" MJ X MJ 90 DEGREE ELBOW.

DETAIL "D"

NO SCALE

*ALL FITTINGS ARE TO BE RESTRAINED

NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR POTHOLING AND VERIFYING THESE LISTED POTHOLE LOCATIONS AND ANY ADDITIONAL LOCATIONS PRIOR TO CONSTRUCTION. ADD POTHOLE DATA TO PLAN SET AS PART OF AS-BUILTS.

EXISTING POTHOLE DATA

POTHOLE #	DESCRIPTION	PIPE TYPE	DEPTH TO TOP OF PIPE
PH30	2" GAS @ ROSA VISTA LN.	STL	36"
PH31	6" WATER @ ROSA VISTA LN.	PVC C900	36"
PH32	4" SS TO 6822 ROSA VISTA LN.	VCP	84"
PH33	3/4" GAS TO 6822 & 6828 ROSA VISTA LN.	STL	20"
PH34	4" SS TO 6828 ROSA VISTA LN.	VCP	77"
PH35	1" PVT. W.S. TO 6821 ROSA VISTA LN.	GALV	14"
PH36	2" GAS @ 6825 ROSA VISTA LN.	STL	30"
PH37	1-1/2" PVT. W.S. TO 6825 ROSA VISTA LN.	PVC	20"
PH38	8" W.M. TIE-IN @ 6825 ROSA VISTA LN.	PVC C900	39"
PH39	1/2" GAS TO 6825 & 6845 ROSA VISTA LN.	PL	31"

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BEEN ENLARGED OR REDUCED.

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

NO.	DESCRIPTION	DATE

REVISIONS

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

ANTHONY J. TASSANO NO. C14886 CIVIL REGISTERED PROFESSIONAL ENGINEER ★ WINNING ★ STATE OF CALIFORNIA 9/28/2017

WARREN CONSULTING ENGINEERS, INC.
2180 HARVARD STREET, SUITE 460
EL DORADO HILLS, CA 95762 | (916) 985-1870

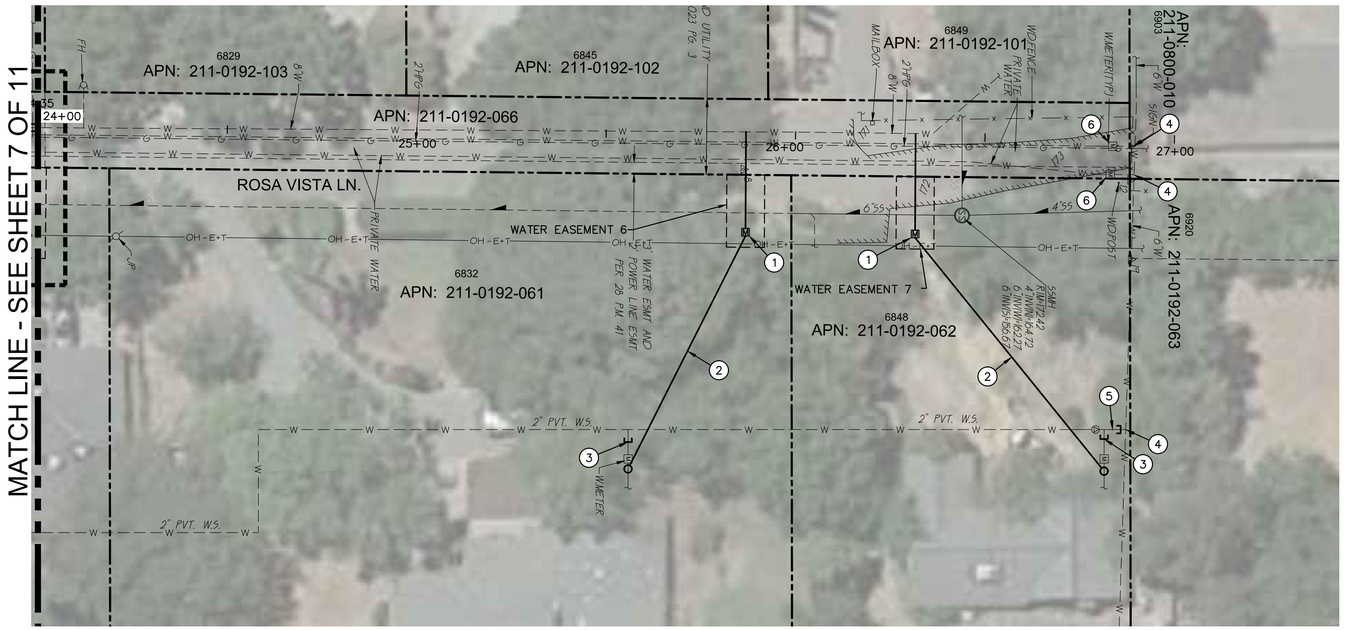
TITLE: ROSA VISTA 8" WATER MAIN STA 20+00 - 24+00

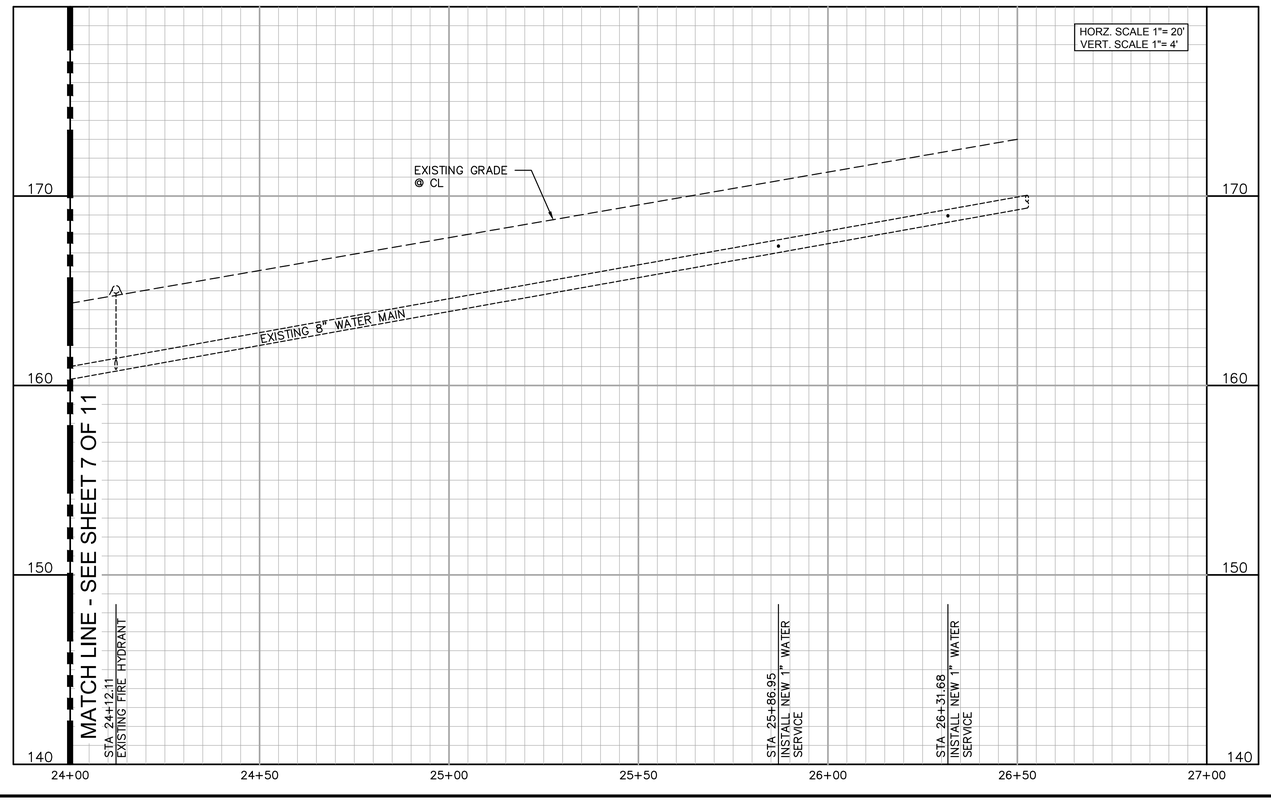
PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT & ROSA VISTA LANE 8" WATER MAIN INSTALLATION

CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 7 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-7-8.DWG PLOTTED: Tuesday, September 26, 2017





CONSTRUCTION NOTES

1. INSTALL 1" METERED WATER SERVICE PER CHWD DETAIL WS_102PE. RELOCATE EXISTING METER TO NEW METER BOX LOCATION.
2. CONNECT NEW METERED WATER SERVICE TO HOUSE OR EXISTING WATER SERVICE AT LOCATION INDICATED ON THE PLANS PER CHWD DETAIL WS_102PE. PLACE #10 INSULATED COPPER WIRE FROM NEW METER LOCATION TO NEW HOUSE VALVE OR NEW CONNECTION POINT (TIE INTO EXISTING WIRE). CONNECTION MATERIAL TO DWELLING SHALL MATCH PLUMBING OF DWELLING OR GALVANIZED PIPE AS APPROPRIATE.
3. ABANDON EXISTING WATER SERVICE. REMOVE EXISTING METER BOX AND PIPING. CAP EXISTING WATER SERVICE AND BACKFILL TO 90% COMPACTION.
4. REMOVE EXISTING 6" SADDLE AND INSTALL 6" X 12" LONG STAINLESS STEEL FULL CIRCLE REPAIR BAND.
5. EXISTING 2" WATER MAIN TO SOUTH TO BE ABANDONED IN PLACE. REMOVE AND PLUG WATER MAIN WHERE NECESSARY TO INSTALL NEW FACILITIES.
6. ABANDON EXISTING 1" WATER SERVICE. REMOVE EXISTING METER BOX AND PIPING, CAP EXISTING WATER SERVICE, AND BACKFILL TO 90% COMPACTION.

GRAPHIC SCALE

20' 0 10' 20' 40'

(IN FEET) 1 inch = 20 feet

NORTH

THIS DRAWING MAY HAVE BENCHMARK NO. 9-102 ELEV. 191.83 CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

A.P.N.

HORIZ. SCALE: AS NOTED

VERT. SCALE: AS NOTED

JOB NO.: 16-157

REVISIONS		
NO.	DESCRIPTION	DATE

DESIGNED: AT

DRAWN: ML

CHECKED: AT

DATE: 09-26-17

REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO No. C14686 CIVIL ★ STATE OF CALIFORNIA ★ 9/28/2017

WARREN CONSULTING ENGINEERS, INC.
11 NATURE OAK WAY, SUITE 141
EL DORADO HILLS, CA 95762 | (916) 985-1870

TITLE: ROSA VISTA 8" WATER MAIN STA 24+00 - 27+00

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT &
ROSA VISTA LANE 8" WATER MAIN INSTALLATION

CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 8 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-7-8.DWG PLOTTED: Tuesday, September 26, 2017

MINIMUM REQUIRED BEARING AREA - TOTAL SQUARE FEET							
TYPE OF FITTING		90° BEND	45° BEND	11 1/4° OR 22 1/2° BEND	TEE OR DEAD END	END OF LINE	CROSS
TYPICAL INSTALLATION							
SIZE OF PIPE	4"	4	2	1	2	3	4
	6"	4	2	1	3	3	4
	8"	7	4	2	5	5	7
	10"	12	6	3	8	8	12
	12"	16	10	5	12	11	16

NOTES:

1. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF TYPE II SIX-SACK PORTLAND CEMENT.
2. AREAS GIVEN ARE FOR CL235 DR 18 AWWA C900-07 PVC, CL305 DR 14 AWWA C900-07 PVC, AND PC350 DIP AT TEST PRESSURE OF 150 P.S.I. IN SOIL WITH MINIMUM 2,000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES REQUIRE ADJUSTMENT OF BEARING AREAS ACCORDINGLY.
3. CONCRETE THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. PIPE, JOINTS, AND BOLTS SHALL BE KEPT CLEAR OF CEMENTITIOUS MATERIALS.
5. TRANSPORTING OR USE OF CONCRETE FOR THRUST BLOCKS IN NON-MIXING TRUCKS OR TRAILERS (BUGGIES) IS NOT PERMITTED.
6. THRUST BLOCKS ARE REQUIRED AT EVERY BEND, TEE, END, AND CROSS ON PIPELINES AND AS DEEMED NECESSARY BY THE DISTRICT INSPECTOR.
7. KEY-IN FROM THE VERTICAL WALL OF TRENCH SHALL BE A MINIMUM OF 8" INTO UNDISTURBED SOIL AND SHALL BE INSPECTED BY CHWD PRIOR TO POURING CONCRETE.
8. CONCRETE THRUST BLOCKS SHALL BE ALLOWED TO CURE FOR A MINIMUM OF 24-HOURS PRIOR TO ANY PRESSURE LOADING OR TRENCH BACKFILLING.

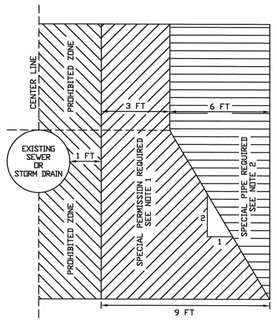
CITRUS HEIGHTS WATER DISTRICT

CONCRETE THRUST BLOCK DETAILS

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TB_001.DWG
PAGE: TB_001



NOTES:

1. NO WATER MAINS PARALLEL TO SEWERS OR STORM DRAINS SHALL BE CONSTRUCTED IN THIS ZONE WITHOUT PRIOR WRITTEN APPROVAL FROM THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH.
2. WATER MAINS IN THIS ZONE SHALL BE CONSTRUCTED OF PC350 DUCTILE IRON PIPE (DIP) OR CL305 DR 14 AWWA C900-07 POLYVINYLCHLORIDE (PVC).

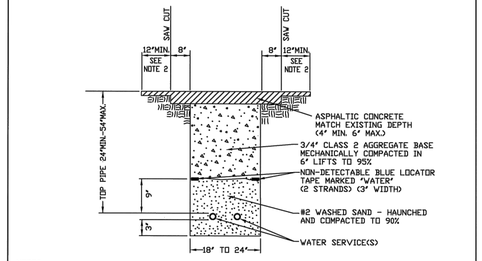
CITRUS HEIGHTS WATER DISTRICT

SEWER/STORM PARALLEL DETAIL

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_783.DWG
PAGE: TREN_783



NOTES:

1. NO PAVEMENT CUTS OR TRENCHES ARE ALLOWED IN PAVEMENT LESS THAN THREE YEARS OLD, UNLESS APPROVED BY THE CITY OF CITRUS HEIGHTS.
2. 1 1/2" DEEP GRINDING AND PAVING. GRIND TO LIP OF GUTTER, LANE LINE, OR CENTER OF TRAFFIC LANE, BUT 12" MINIMUM WIDTH.
3. SLURRY SEAL COAT TREATMENT SHALL BE APPLIED AT LOCATIONS SPECIFIED, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF CITRUS HEIGHTS.

CITRUS HEIGHTS WATER DISTRICT

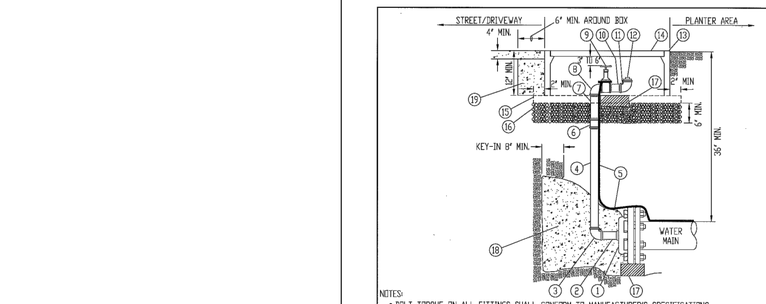
SERVICE LINE TRENCH DETAIL - PAVEMENT

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_723CH.DWG
PAGE: TREN_723CH

FOR CONSTRUCTION IN THE CITY OF CITRUS HEIGHTS



NOTES:

- BOLT TORQUE ON ALL FITTINGS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.
- MATERIAL BELOW CRUSHED ROCK SHALL BE COMPACTED TO 95% MINIMUM.
- LID SHALL BE MARKED "WATER"
- VALVE OPERATING HANDLE SHALL BE CENTERED IN BOX AND FULLY ACCESSIBLE.
- CONCRETE ENCASEMENT SHALL BE ALLOWED TO CURE 24 HOURS MINIMUM PRIOR TO FINISH PAVING.

1	MJ CAP W/ 2" FIP OUTLET	11	2" BRASS 90° ELBOW
2	2" x 6" BRASS NIPPLE	12	2" BRASS PLUG, FINGER TIGHT
3	2" BRASS 90° ELBOW		NON-TRAFFIC AREA / SIDEWALK/DV / STREET
4	2" x 24" BRASS NIPPLE	13	BOX: CARSON 1228-12 / CHRISTY FL3012BOX / CHRISTY B1324BOX
5	#10 INSULATED COPPER LOCATOR WIRE	14	LID: CARSON 1228-48 / CHRISTY FL3OT / CHRISTY B1324-6LH
6	2" BRASS COUPLING - ONE ONLY	15	2" x 6" PRESSURE TREATED DOUGLAS FIR SUPPORTS (2)
7	2" BRASS NIPPLE - ONE ONLY, LENGTH AS NECESSARY TO ADJUST TO PROPER GRADE	16	3/4" CLEAN CRUSHED ROCK
		17	CONCRETE BRICK - 2 1/4" x 3 3/4" x 7 1/2"
8	2" BRASS STREET ELBOW	18	CONCRETE THRUST BLOCK - SEE DETAIL TB_001
9	2" BRASS GATE VALVE-NIBCO T-113LF OR EQUAL w/ 4" BRASS HANDWHEEL	19	CONCRETE ENCASEMENT AROUND VALVE BOX- TYPE II SIX-SACK PORTLAND CEMENT
10	2" x 3" BRASS NIPPLE		

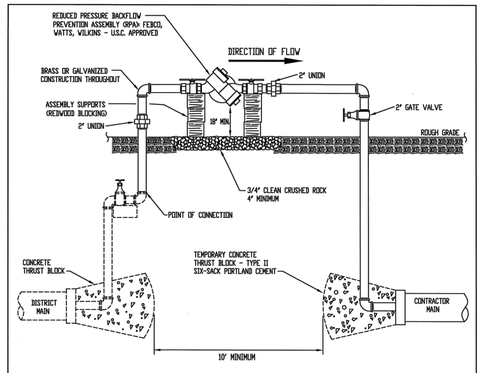
CITRUS HEIGHTS WATER DISTRICT

2" BLOW-OFF VALVE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATED: 7/31/15
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 29 JULY 2015
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: BO_511.DWG
PAGE: BO_511



NOTES:

1. WATER SHALL ONLY BE DRAWN INTO THE CONTRACTOR'S MAIN THROUGH A DISTRICT-APPROVED RPA TYPE BACKFLOW PREVENTION ASSEMBLY. PRIOR TO CONNECTION TO THE DISTRICT WATER MAIN, THE ASSEMBLY MUST BE TESTED BY A SACRAMENTO COUNTY CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTER AND WRITTEN TEST RESULTS PROVIDED TO THE DISTRICT.
2. FINAL COMPONENTS NECESSARY FOR THE TIE-IN SHALL BE PRE-CHLORINATED AND FLUSHED IN THE PRESENCE OF A DISTRICT INSPECTOR.
3. ABOVE-GROUND CONSTRUCTION WATER SERVICE SHALL BE SAFE-GUARDED WITH BARRICADES.
4. THE CONTRACTOR MAY CONNECT TO A DISTRICT FIRE HYDRANT INSTEAD OF A DISTRICT WATER MAIN AT THE SOLE DISCRETION OF THE INSPECTOR.

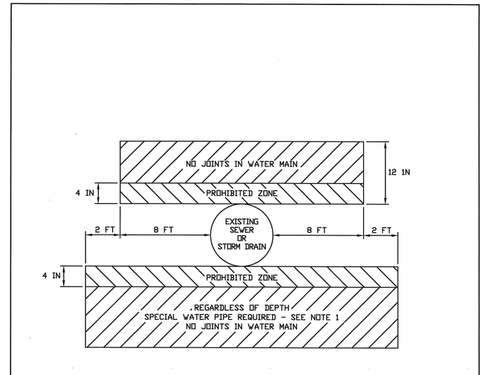
CITRUS HEIGHTS WATER DISTRICT

2" CONSTRUCTION WATER SERVICE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: WS_221.DWG
PAGE: WS_290



NOTE:

1. AN 18 FOOT LENGTH OF PC350 DUCTILE IRON PIPE (DIP) OR A 20 FOOT LENGTH OF CL305 DR 14 AWWA C900-07 POLYVINYLCHLORIDE (PVC) WATER MAIN TO BE CENTERED BELOW SEWER OR STORM DRAIN CROSSINGS.

CITRUS HEIGHTS WATER DISTRICT

SEWER/STORM CROSSING DETAIL

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_782.DWG
PAGE: TREN_782

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS

NO.	DESCRIPTION	DATE

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

REGISTERED PROFESSIONAL ENGINEER * ANTHONY J. TASSANO NO. C14886 CIVIL STATE OF CALIFORNIA * 9/28/2017

WARREN CONSULTING ENGINEERS, INC.
3301 C STREET, SUITE 100-B
EL DORADO HILLS, CA 95762 | (916) 985-1870

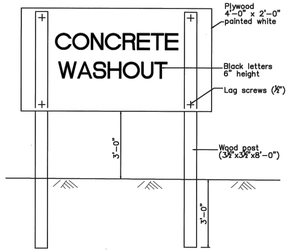
TITLE: STANDARD DETAILS - 1

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT & ROSA VISTA LANE 8" WATER MAIN INSTALLATION

CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 9 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-9-11.DWG PLOTTED: Tuesday, September 26, 2017



CONCRETE WASHOUT SIGN DETAIL

NOTES:
1. The concrete washout sign shall be installed within 32'-10" of the portable concrete washout container.

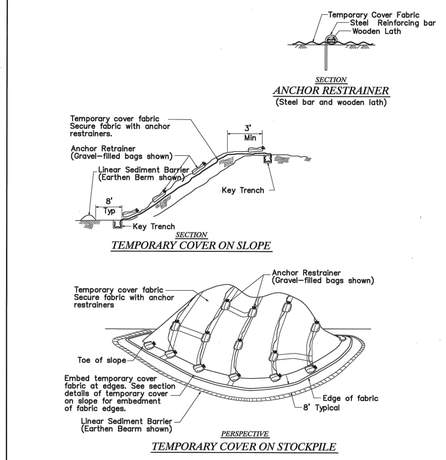
CITRUS HEIGHTS WATER DISTRICT

CONCRETE WASHOUT FACILITY-SIGN

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_125.DWG
PAGE: SWPPP_125



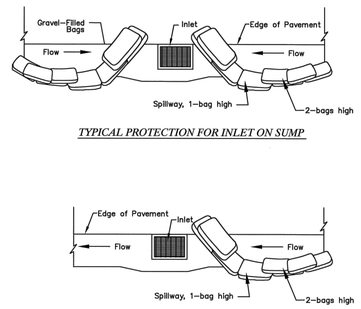
CITRUS HEIGHTS WATER DISTRICT

TEMPORARY COVER STOCKPILE INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_111.DWG
PAGE: SWPPP_111



NOTES:
1. Intended for short-term use.
2. Use to inhibit non-storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable without filter fabric in areas with high silts and clays.

CITRUS HEIGHTS WATER DISTRICT

STORM DRAIN INLET PROTECTION CURB INLET INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_101.DWG
PAGE: SWPPP_101

MAKEUP WATER ALLOWANCES (GALLONS PER HOUR PER 1000')			
PVC		DIP	
SIZE OF PIPE	LEAKAGE ALLOWANCE	SIZE OF PIPE	LEAKAGE ALLOWANCE
4"	0.36	4"	0.36
6"	0.54	6"	0.54
8"	0.72	8"	0.72
10"	0.89	10"	0.89
12"	1.02	12"	1.07
		14"	1.25
		16"	1.43
		18"	1.61
		24"	2.15

NOTES:
1. THE CONTRACTOR SHALL PRESSURIZE ALL NEW FACILITIES INDEPENDENT OF THE EXISTING SYSTEM. CITRUS HEIGHTS WATER DISTRICT ASSUMES NO LIABILITY FOR THE SAFETY OF CONTRACTOR PERSONNEL.
2. THE CONTRACTOR IS RESPONSIBLE FOR A SUCCESSFUL PRE-TEST OF THE FACILITIES.
3. THE DISTRICT INSPECTOR SHALL WITNESS THE HYDROSTATIC PRESSURE TEST UPON REQUEST OF THE CONTRACTOR.
4. PRESSURE SHALL BE REDUCED TO 60 PSI MAXIMUM AND RAISED TO TEST PRESSURE IN THE PRESENCE OF THE DISTRICT INSPECTOR.
5. HYDROSTATIC TEST PRESSURE SHALL BE 150 PSI. A DROP IN PRESSURE OF GREATER THAN 5 PSI AND/OR EXCEEDING THE MAKEUP WATER ALLOWANCE SHALL VOID THE TEST.
6. THE HYDROSTATIC PRESSURE TEST SHALL BE 2-HOURS IN DURATION.

MAKEUP WATER ALLOWANCE TABLE REFERENCES:
PVC: ANSI/AWWA C605-05, PG 24, TABLE 2.
DIP: ANSI/ AWWA C600-05, PG 27, TABLE 5A.

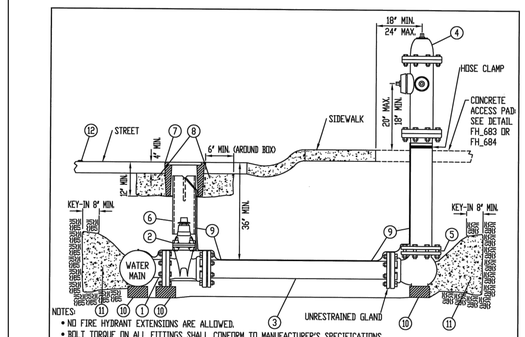
CITRUS HEIGHTS WATER DISTRICT

HYDROSTATIC PRESSURE TESTING

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: HP_001.DWG
PAGE: HP_001



NOTES:
- NO FIRE HYDRANT EXTENSIONS ARE ALLOWED.
- BOLT TORQUE ON ALL FITTINGS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.
- AREA AROUND FIRE HYDRANT SHALL BE COMPACTED TO 90% MINIMUM.
- PAINT HYDRANT BURY USING A MANUFACTURER'S RECOMMENDED PRIMER, FINISH WITH RUSTOLEUM GLOSS WHITE, TWO COATS MINIMUM. PRIOR TO PAINTING, CLEAN ALL SURFACES WITH SOAP AND WATER USING AN ABRASIVE PAD.

1	TEE - DUCTILE IRON - FLANGED OUTLET	7	VALVE BOX/LID - MARKED "WATER", OLDCASTLE PRECAST NO. G04 BOX, G04C LID
2	6" GATE VALVE - RESILIENT WEDGE - FLANGED TO TEE x MECHANICAL JOINT	8	CONCRETE ENCASEMENT AROUND VALVE BOX - TYPE II SIX-SACK PORTLAND CEMENT - SEE DETAIL WB_811
3	6" DUCTILE IRON PIPE - PC350	9	#10 INSULATED COPPER LOCATOR WIRE
4	STEAMER FIRE HYDRANT - MUELLER A-423 OR AMERICAN DARLING B848 - MINIMUM 48" BURY, MECHANICAL JOINT INLET. SHALL BE FACTORY WHITE.	10	CONCRETE BRICK - 2 1/4" x 3 3/4" x 7 1/2"
		11	CONCRETE THRUST BLOCK - SEE DETAIL TB_001
5	BRASS PLUGS SHALL BE INSTALLED IN DRAIN HOLES IN SHOE.	12	BLUE REFLECTIVE MARKER - INSTALLED PER SACRAMENTO METROPOLITAN FIRE DISTRICT SPECIFICATIONS
6	8" RISER - SDR35 ONLY, CONTINUOUS SECTION		

CITRUS HEIGHTS WATER DISTRICT

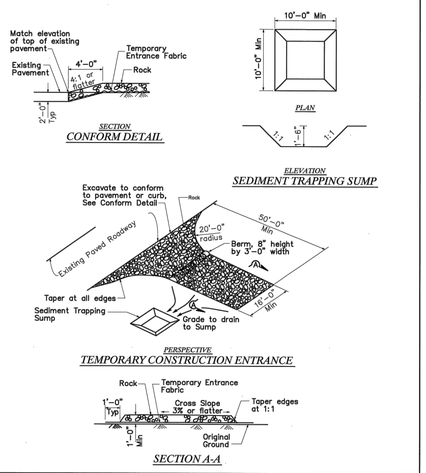
FIRE HYDRANT - 6" CONNECTION (STREET SIDE)

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: FH_612.DWG
PAGE: FH_612

DETAIL FOR CONSTRUCTION IN:
SACRAMENTO METRO FIRE DISTRICT



CITRUS HEIGHTS WATER DISTRICT

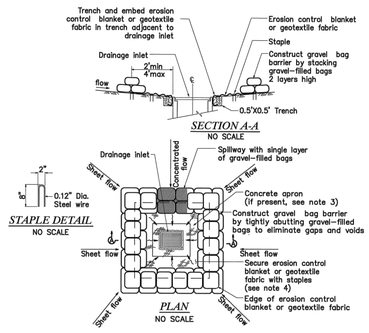
TEMPORARY CONSTRUCTION ENTRANCE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_120.DWG
PAGE: SWPPP_120

NOTES:
1. Dimensions may vary to fit field conditions.
2. Install a minimum of 3 gravel bag barriers upstream of each drainage inlet to be protected.
3. Position erosion control blanket or geotextile fabric at edge of concrete apron and secure in trench.
4. Erosion control blanket/geotextile fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



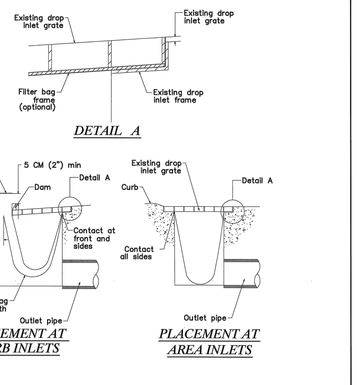
CITRUS HEIGHTS WATER DISTRICT

STORM DRAIN INLET PROTECTION AREA INLET INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_103.DWG
PAGE: SWPPP_103



CITRUS HEIGHTS WATER DISTRICT

STORM DRAIN INLET PROTECTION FILTER BAG INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATED: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_100.DWG
PAGE: SWPPP_100

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

REVISIONS		
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REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO NO. C14886 CIVIL ★ STATE OF CALIFORNIA 9/28/2017

WARREN CONSULTING ENGINEERS, INC.
1117 HUMBOLDT, SUITE 100
EL DORADO HILLS, CA 95762 | (916) 985-1870

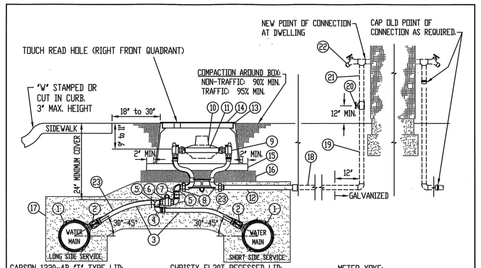
TITLE: STANDARD DETAILS - 2

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT & ROSA VISTA LANE 8" WATER MAIN INSTALLATION

CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 10 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-9-11.DWG PLOTTED: Tuesday, September 26, 2017



CARSON 1220-48 "I" TYPE LID: SHALL INCLUDE STRAIGHT TYPE HEXAGON LOCK-DOWN BOLT (2) AND TOUCH READ HOLE. SHALL BE MARKED "WATER".

CHRISTY FL30T RECESSED LID: SHALL INCLUDE STRAIGHT TYPE PENTAHEAD LOCK-DOWN BOLTS (2) AND TOUCH READ HOLE. SHALL BE MARKED "WATER".

METER YOKE: FORD, JONES, MUELLER, McDONALD

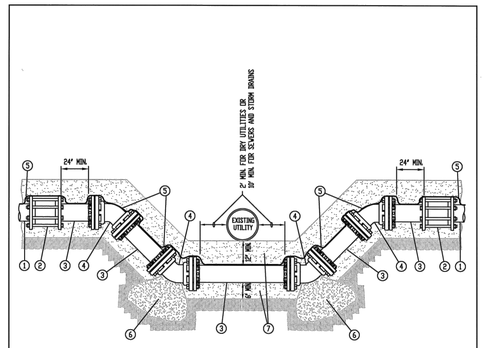
1	1" BRONZE SADDLE - IPT	10	1" WATER METER (BY DISTRICT)
2	1" CORPORATION STOP - FULL-PORT BALL, MIP x CTS COMP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	11	PVC METER IDLER - 1 1/4" x 10 3/4", SCH 80 (BY CONTRACTOR)
		12	1" x 18" PVC NIPPLE - SCH 80 (BRASS IF BACKFLOW)
3	1" POLYETHELENE TUBING - CTS ENDOPORE PE-4710 SIDR 9 (250 PSI) OR EQUAL		NON-TRAFFIC AREAS / TRAFFIC AREAS
		13	METER BOX: CARSON 1220-12 / CHRISTY FL30TBOX12
4	1" BRASS STREET ELBOW - CTS COMP x MIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	14	LID: CARSON 1220-48 / CHRISTY FL30T
		15	2' x 6' PRESSURE TREATED DOUGLAS FIR SUPPORTS (2)
5	1" BRASS STREET ELBOW	16	3/4" CLEAN CRUSHED ROCK
6	1" VALVE - FULL-PORT BALL, FIP x FIP or CTS COMP x FIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	17	#2 WASHED SAND COMPACTED TO 90%
		18	1 1/4" PVC SCH 40 w/ SCH 80 FITTINGS
7	1" BRASS NIPPLE (AS NECESSARY TO ADJUST TO PROPER GRADE)	19	1 1/4" GALVANIZED PIPE
		20	1 1/4" GATE VALVE
8	1" DUAL PURPOSE CONNECTION	21	GALVANIZED PIPE AND FITTINGS - SIZE TO MATCH EXISTING
9	1" COPPER/BRASS METER YOKE - 12" HEIGHT w/2 FULL PORT ANGLE BALL VALVES INCLUDING PAULOK VONS ON INLET AND OUTLET	22	HOSE BIB - SIZE TO MATCH EXISTING
		23	#10 INSULATED COPPER LOCATING WIRE

1" POLYETHYLENE WATER SERVICE - 1" WATER METER INCLUDING SERVICE LINE TO DWELLING

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 9/25/14
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 25 SEP 2014
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: WS_102PE.DWG
PAGE: WS_102PE



NOTE:
• BOLT TORQUE ON ALL FITTINGS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.

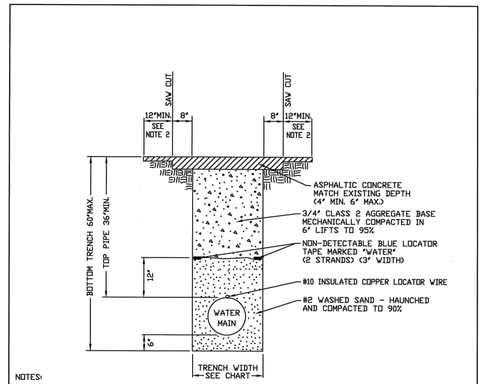
1	EXISTING WATER MAIN	5	#10 INSULATED COPPER LOCATOR WIRE
2	FLEXIBLE COUPLING w/ 12" BARREL	6	CONCRETE THRUST BLOCK - SEE DETAIL TB_001
3	DUCTILE IRON PIPE - PC350, CONTINUOUS SECTION	7	#2 WASHED SAND - COMPACTED TO 90%
4	45° ELBOW - MECHANICAL JOINT W/ MEGA-LUG RESTRAINT GLANDS		

UTILITY CROSSING

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: UC_001.DWG
PAGE: UC_001



NOTES:
1. NO PAVEMENT CUTS OR TRENCHES ARE ALLOWED IN PAVEMENT LESS THAN THREE YEARS OLD, UNLESS APPROVED BY THE CITY OF CITRUS HEIGHTS.
2. 1 1/2" DEEP GRINDING AND PAVING. GRIND TO LIP OF GUTTER, LANE LINE, OR CENTER OF TRAFFIC LANE, BUT 12' MINIMUM WIDTH.
3. SEAL COAT TREATMENT SHALL BE APPLIED AT LOCATIONS SPECIFIED, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF CITRUS HEIGHTS.

MAIN DIAMETER	MINIMUM TRENCH WIDTH
4"	18"
6"	24"
8"	24"
10"	30"
12"	30"

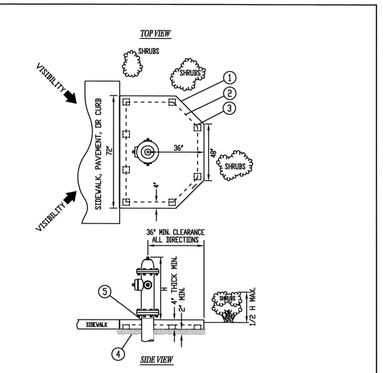
4" THROUGH 12" TRENCH DETAIL - PAVEMENT

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

FOR CONSTRUCTION IN THE CITY OF CITRUS HEIGHTS

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_713CH.DWG
PAGE: TREN_713CH



NOTES:
• CONCRETE PAD TO BE POURED INDEPENDENT OF OTHER CONCRETE WORK.
• CONTACT CITRUS HEIGHTS WATER DISTRICT FOR REBAR INSPECTION PRIOR TO POURING CONCRETE. (916) 725-6873
• MATERIAL BELOW AGGREGATE BASE SHALL BE COMPACTED TO 90% MINIMUM.
• REINFORCED CONCRETE PAD SHALL BE FINISHED WITH AN EDGING TOOL AROUND THE ENTIRE PERIMETER AND BROOMED AT RIGHT ANGLES TO THE DIRECTION OF TRAVEL.
• PAINT FIRE HYDRANT USING A RUSTOLEUM RECOMMENDED PRIMER, FINISH WITH RUSTOLEUM GLOSS WHITE, TWO COATS MINIMUM. PRIOR TO PAINTING, CLEAN ALL SURFACES WITH SOAP AND WATER USING AN ABRASIVE PAD.

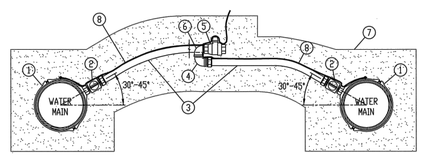
1	REINFORCED CONCRETE PAD - TYPE II SIX-SACK PORTLAND CEMENT	4	3/4" CLASS 2 AGGREGATE BASE - 2' MINIMUM, MECHANICALLY COMPACTED TO 90%
2	3/8" (#3) REBAR - 2' INSIDE PERIMETER		
3	CONCRETE (6000 w/ WIRE	5	ASPHALT SATURATED ORGANIC FELT (ROOFING PAPER) - ASTM 30, 2 LAYERS AROUND FIRE HYDRANT

FIRE HYDRANT ACCESS PAD

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: FH_683.DWG
PAGE: FH_683



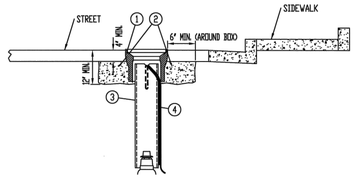
1	1" BRONZE SADDLE - IPT	5	1" VALVE - FULL-PORT BALL, FIP x FIP or CTS x FIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)
2	1" CORPORATION STOP - FULL-PORT BALL, MIP x CTS COMP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	6	1" BRASS STREET ELBOW
3	1" POLYETHYLENE TUBING - CTS ENDOPORE PE-4710 SIDR 9 (250 PSI) OR EQUAL	7	#2 WASHED SAND COMPACTED TO 90%
		8	#10 INSULATED COPPER LOCATOR WIRE (INSTALL INTO EXISTING METER BOX)
4	1" BRASS STREET ELBOW - CTS COMP x MIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)		

1" POLYETHYLENE WATER SERVICE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 9/25/14
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 25 SEP 2014
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: WS_108PE.DWG
PAGE: WS_108PE



NOTES:
• RISER SHALL BE PLUMB.
• VALVE OPERATING NUT SHALL BE CENTERED IN THE RISER AND FULLY ACCESSIBLE.
• MATERIAL BELOW CONCRETE ENCASEMENT SHALL BE COMPACTED TO 95% MINIMUM.
• CONCRETE ENCASEMENT SHALL BE ALLOWED TO CURE 24 HOURS MINIMUM PRIOR TO FINISH PAVING.
• TRIANGULAR LID SHALL POINT IN THE DIRECTION OF THE MAIN WHICH IS ISOLATED BY THE VALVE.

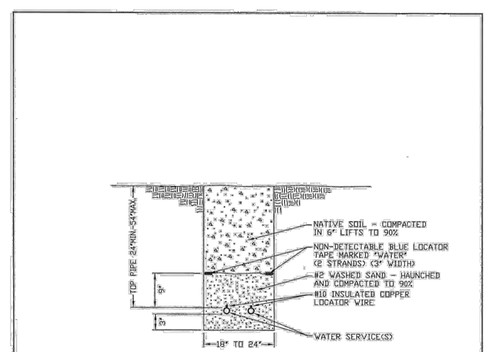
1	VALVE BOX/LID - MARKED "WATER", OLDCASTLE PRECAST N1 G04 BOX, G04C LID
2	CONCRETE ENCASEMENT AROUND VALVE BOX - TYPE II SIX-SACK PORTLAND CEMENT
3	8" RISER - SDR35 ONLY, CONTINUOUS SECTION
4	#10 INSULATED COPPER LOCATOR WIRE

WATER MAIN VALVE BOX - STREET/DRIVEWAY

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: VB_811.DWG
PAGE: VB_811

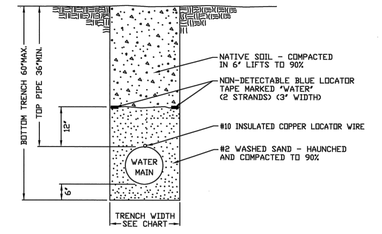


SERVICE LINE TRENCH DETAIL - NATIVE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Melissa Pier DATE: 4/19/17
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 19 APRIL 2017
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_721.DWG
PAGE: TREN_721



MAIN DIAMETER	MINIMUM TRENCH WIDTH
4"	18"
6"	24"
8"	24"
10"	30"
12"	30"

4" THROUGH 12" TRENCH DETAIL - NATIVE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_711.DWG
PAGE: TREN_711

A.P.N.

BENCHMARK NO. 9-102 ELEV. 191.83
CHISELED SQUARE STAMPED "CO. B.M. 9-102" IN NORTHEAST CORNER OF TOP STEEL PORTION OF DI AT EAST END CURB RETURN AT SOUTHEAST CORNER SUNRISE BLVD. AND WOODMORE OAKS DR. APPROXIMATELY 75' EAST OF CL SUNRISE BLVD.

HORIZ. SCALE: AS NOTED
VERT. SCALE: AS NOTED
JOB NO.: 16-157

NO.	DESCRIPTION	DATE
	REVISIONS	

DESIGNED: AT
DRAWN: ML
CHECKED: AT
DATE: 09-26-17

REGISTERED PROFESSIONAL ENGINEER ★ ANTHONY J. TASSANO NO. C14886 CIVIL ★ STATE OF CALIFORNIA ★ 9/28/2017

WARREN CONSULTING ENGINEERS, INC.
3301 C STREET, SUITE 100-B
EL DORADO HILLS, CA 95762 | (916) 985-1870

TITLE: STANDARD DETAILS - 3

PROJECT: CITRUS HEIGHTS WATER DISTRICT
HIGHLAND AVENUE 8" WATER MAIN REPLACEMENT &
ROSA VISTA LANE 8" WATER MAIN INSTALLATION
CITRUS HEIGHTS - SACRAMENTO COUNTY CALIFORNIA

SHEET NO. 11 OF 11

FILENAME: I:\16-157\CIVIL\DWG\16-157-9-11.DWG PLOTTED: Tuesday, September 26, 2017

ATTACHMENT 2

Highland and Rosa Vista Lane Water Main
Replacement Project
Contract

HIGHLAND AVENUE
AND
ROSA VISTA AVENUE
WATER MAIN
REPLACEMENT PROJECT

SPECIFICATIONS FOR
PROJECT NO. C15-133

❖

ISSUED FOR BID
OCTOBER 23, 2017

CITRUS HEIGHTS WATER DISTRICT

6230 Sylvan Rd • PO Box 286
Citrus Heights • California • 95611-0286

916/725-6873 • 916/725-0345 Fax

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NOTICE INVITING BIDS

Citrus Heights Water District ("District") will receive sealed bids for the Highland Avenue & Rosa Vista Avenue Water Main Replacement Project no later than November 21, 2017 at 2:00 pm, at the Administrative Office of Citrus Heights Water District, 6230 Sylvan Road, Citrus Heights, CA 95610, at which time said bids will be read aloud. The District will not accept late bids. Bids shall be valid for 60 calendar days after the bid opening date.

The Project must be completed within **100** calendar days, beginning ten (10) calendar days after the date on which the notice to proceed ("Notice to Proceed") is sent by the District to the contractor that is awarded a bid for this Project ("Contractor").

The Project consists of all Work described in the Contract Documents and generally consists of furnishing of all labor, materials, tax, equipment and services for the construction and completion of the following work all within the roadways of Highland Avenue and Rosa Vista Avenue in Citrus Heights. The work to be completed includes, but is not limited to, installing 1322 linear feet of 8-inch water main, 24 linear feet of 6-inch water main, six (6) 8-inch gate valves, one (1) 6-inch gate valve, one (1) steamer fire hydrant, six (6) 1-inch metered water services, and sixteen (16) 1-inch water services with curb stops.

Amendments or changes to the Contract Documents, Plans and Specifications prior to the date and time specified of the opening of bids will be performed and validated in writing and distributed by the District to the plan holders of record.

Complete sets of the Bid Forms must be used in preparing bids. The District does not assume responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents. Modifications to or withdrawal of bids may be made by the bidder prior to the bid closing deadline. Bids must be accompanied by cash, a certified or cashier's check, or a Bid Bond in favor of the District in an amount not less than (10%) of the submitted Total Bid Price.

A full set of the Contract Documents are also available for examination at the District's Engineering Division at 6230 Sylvan Road, Citrus Heights, CA 95611, 916-725-6875.
Any Bidder may visit the District offices at the time set for bid submission and request a reading of the bids. However, bid results are automatically made public in the bid management system upon bid closing. The District reserves the right to reject any or all Bids and to waive any informality or irregularity in any Bid.

A MANDATORY Pre-Bid Conference will be held at **6230 Sylvan Road, Citrus Heights, CA 95611** on the following date(s) and time(s): November 8, 2017 at 10AM. Each and every Bidder MUST attend the Pre-Bid Conference. Bids WILL NOT be

accepted from any bidder who did not attend the Mandatory Pre-Bid Conference.

The last day to submit written questions is November 14, 2017 before 5PM. Submission shall be sent via email to Paul Dietrich at pauld@chwd.org. An addendum will be created to address all questions and sent to all attendees of the Mandatory Pre-Bid Conference via email by end-of-day November 16, 2017.

The District's preliminary cost estimate for this Project is $375,000.00

Each bid shall be accompanied by the security referred to in the Contract Documents, the non-collusion declaration, the list of proposed subcontractors, and all additional documentation required by the Instructions to Bidders.

The successful bidder will be required to furnish the District with a Performance Bond equal to 100% of the successful bid, and a Payment Bond equal to 100% of the successful bid, prior to execution of the Contract. All bonds are to be secured from a surety that meets all of the State of California bonding requirements, as defined in Code of Civil Procedure Section 995.120, and is admitted by the State of California.

Pursuant to Public Contract Code Section 22300, the successful bidder may substitute certain securities for funds withheld by District to ensure his performance under the Contract.

The Director of Industrial Relations has determined the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute the Contract which will be awarded to the successful bidder, copies of which are on file and will be made available to any interested party upon request at the District's offices, 6230 Sylvan Road, Citrus Heights, California 95610, or online at http://www.dir.ca.gov/dlsr. A copy of these rates shall be posted by the successful bidder at the job site. The successful bidder and all subcontractor(s) under him, shall comply with all applicable Labor Code provisions, which include, but are not limited to the payment of not less than the required prevailing rates to all workers employed by them in the execution of the Contract, the employment of apprentices, the hours of labor and the debarment of contractors and subcontractors.

All contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. This Project will be subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Each bidder shall be a licensed contractor pursuant to the Business and Professions Code and shall be licensed in the following appropriate classification(s) of contractor's license(s), for the work bid upon, and must maintain the license(s) throughout the duration of the Contract:

California Class A General Engineering Contractor.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. In bidding on this project, it shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements under this contract and applicable law in its bid.

Award of Contract: The District shall award the Contract for the Project to the lowest responsible bidder as determined from the Base Bid by the District. The District reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding process.

The District reserves the right to reject any or all bids or to accept any bid. The District reserves the right to determine which proposal is, in its judgment, the most responsive bid of a responsible bidder and which proposal should be accepted in the best interest of the District. The District also reserves the right to waive any informality in any proposal or bid.

For further information, contact Paul Dietrich at 916-735-7723 or via e-mail (pauld@chwd.org).

END OF NOTICE INVITING BIDS

INSTRUCTIONS TO BIDDERS

1. AVAILABILITY OF CONTRACT DOCUMENTS

Bids must be submitted to the District on the Bid Documents which are a part of the Bid Package for the Project. Prospective bidders may obtain a complete set of Contract Documents as stated in the Notice Inviting Bids.

2. EXAMINATION OF CONTRACT DOCUMENTS

The District has made copies of the Contract Documents available, as indicated above. Bidders shall be solely responsible for examining the Project Site and the Contract Documents, including any Addenda issued during the bidding period, and for informing itself with respect to local labor availability, means of transportation, necessity for security, laws and codes, local permit requirements, wage scales, local tax structure, contractors' licensing requirements, availability of required insurance, and other factors that could affect the Work. Bidders are responsible for consulting the standards referenced in the Contract. Failure of Bidder to so examine and inform itself shall be at its sole risk, and no relief for error or omission will be given except as required under State law.

3. INTERPRETATION OF CONTRACT DOCUMENTS

Discrepancies in, and/or omissions from the Plans, Specifications or other Contract Documents or questions as to their meaning shall be immediately brought to the attention of the District by submission of a written request for an interpretation or correction to the District. Such submission, if any, must be sent via email or U.S. Mail to:

Paul A. Dietrich
Citrus Heights Water District
6230 Sylvan Road
Citrus Heights Water District
e-mail: pauld@chwd.org

and received no later than November 8, 2017 by 5:00PM.

Any interpretation of the Contract Documents will be made only by written addenda duly issued and provided to all recipients of complete sets of the Contract Documents. The District will not be responsible for any explanations or interpretations provided in any other manner. No person is authorized to make any oral interpretation of any provision in the Contract Documents to any Bidder, and no Bidder should rely on any such oral interpretation.

Bids shall include complete compensation for all items of work to be performed under the Contract Documents.

4. INSPECTION OF SITE; PRE-BID CONFERENCE AND SITE WALK

Each prospective bidder is responsible for fully acquainting itself with the conditions of the Project Site(s), as well as those relating to the construction and labor of the Project, to fully understand the facilities, difficulties and restrictions which may impact the cost or effort required to complete the Project. To this end, a Pre-Bid Conference and Site Walk will be held on the date(s) and time(s) indicated in the Notice Inviting Bids.

5. ADDENDA

The District reserves the right to revise the Contract Documents prior to the bid opening date. Revisions, if any, shall be made by issuing Addenda. All plan holders will be notified when an addendum is posted to the bid management system. All addenda issued by the District shall be included in the bid and made part of the Contract Documents. Pursuant to Public Contract Code Section 4104.5, if the District issues an Addendum which includes material changes to the Project less than **72 hours** prior to the deadline for submission of bids, the District will extend the deadline for submission of bids. The District may determine, in its sole discretion, whether an Addendum warrants postponement of the bid submission date. Announcement of any extension shall be made via the electronic bid management system to all plan holders. Please Note: Bidders are responsible for ensuring that they have received any and all Addenda. To this end, the electronic bid management system requires each bidder acknowledge receipt of all addenda before submission of the bid.

6. ALTERNATE BIDS

If alternate bid items are called for in the Contract Documents, the lowest bid will be determined on the basis of the base bid only, unless otherwise specified in the notice Inviting Bids. The time required for completion of the alternate bid items has been factored into the Contract Time and no additional time will be awarded for any of the alternate bid items. The District may elect to include one or more of the alternate bid items, or to otherwise remove certain work from the Project scope of work, accordingly each Bidder must ensure that each bid item contains a proportionate share of profit, overhead and other costs or expenses which will be incurred by the Bidder.

7. COMPLETION OF BID FORMS

Bids shall only be prepared using copies of the Bid Forms which are included in the Contract Documents. The use of substitute bid forms will not be permitted. Bids shall be executed by an authorized signatory as described in these Instructions to Bidders. Deviations in the bid form may result in the bid being deemed non-responsive.

8. MODIFICATIONS OF BIDS

Each Bidder shall submit its Bid in strict conformity with the requirements of the Contract Documents. Unauthorized additions, modifications, revisions, conditions,

limitations, exclusions or provisions attached to a Bid may render it non-responsive and may cause its rejection. Bidders shall neither delete, modify, nor supplement the printed matter on the Bid Forms, nor make substitutions thereon. Oral, telephonic and electronic modifications will not be considered, unless the Notice Inviting Bids authorizes the submission of electronic bids and modifications thereto and such modifications are made in accordance with the Notice Inviting Bids.

9. DESIGNATION OF SUBCONTRACTORS

Pursuant to State law, the Bidders must designate the name and location of each subcontractor who will perform work or render services for the Bidder in an amount that exceeds one-half of one percent (1/2%) of the Bidder's Total Bid Price, as well as the portion of work each such subcontractor will perform on the form provided herein by the District. No additional time will be provided to bidders to submit any of the requested information in the Designation of Subcontractor form.

10. LICENSING REQUIREMENTS

Pursuant to Section 7028.15 of the Business and Professions Code and Section 3300 of the Public Contract Code, all bidders must possess proper licenses for performance of this Contract. Subcontractors must possess the appropriate licenses for each specialty subcontracted. Pursuant to Section 7028.5 of the Business and Professions Code, the District shall consider any bid submitted by a contractor not currently licensed in accordance with state law and pursuant to the requirements found in the Contract Documents to be nonresponsive, and the District shall reject the Bid. The District shall have the right to request, and Bidders shall provide within five (5) calendar days, evidence satisfactory to the District of all valid license(s) currently held by that Bidder and each of the Bidder's subcontractors, before awarding the Contract.

Notwithstanding anything contained herein, if the Work involves federal funds, the Contractor shall be properly licensed by the time the Contract is awarded, pursuant to the provisions of Public Contract Code Section 20103.5.

11. SIGNING OF BIDS

All Bids submitted shall be executed by the Bidder or its authorized representative. Bidders may be asked to provide evidence in the form of an authenticated resolution of its Board of Directors or a Power of Attorney evidencing the capacity of the person signing the Bid to bind the Bidder to each Bid and to any Contract arising therefrom. Hard copy of bids shall be submitted at the District's offices.

If a Bidder is a joint venture or partnership, it may be asked to submit an authenticated Power of Attorney executed by each joint venturer or partner appointing and designating one of the joint venturers or partners as a management sponsor to execute the Bid on behalf of Bidder. Only that joint venturer or partner shall execute the Bid. The Power of Attorney shall also: (1) authorize that particular joint venturer or partner to act for and

bind Bidder in all matters relating to the Bid; and (2) provide that each venturer or partner shall be jointly and severally liable for any and all of the duties and obligations of Bidder assumed under the Bid and under any Contract arising therefrom. The Bid shall be executed by the designated joint venturer or partner on behalf of the joint venture or partnership in its legal name.

12. BID GUARANTEE (BOND)

Each bid shall be accompanied by: (a) cash; (b) a certified check made payable to the District; (c) a cashier's check made payable to the District; or (d) a bid bond payable to the District executed by the bidder as principal and surety as obligor in an amount not less than 10% of the maximum amount of the bid. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. The cash, check or bid bond shall be given as a guarantee that the bidder shall execute the Contract if it be awarded to the bidder, shall provide the payment and performance bonds and insurance certificates and endorsements as required herein within ten (10) calendar days after notification of the intent to award the Contract to the bidder. Failure to provide the required documents may result in forfeiture of the bidder's bid deposit or bond to the District and the District may award the Contract to the next lowest responsible bidder, or may call for new bids.

13. SUBMISSION OF SEALED BIDS

Bidders shall submit hard copies of their bids pursuant to Public Contract Code Sections 1600 and 1601. The acceptable method(s) of submission are stated in the Notice Inviting Bids. District shall not accept bids otherwise transmitted. **No oral, telephonic, or facsimile bids will be considered.**

14. DELIVERY AND OPENING OF BIDS

Bids will be received by the District up to the date and time shown in the Notice Inviting Bids. It is the Bidder's sole responsibility to ensure that its Bid is received as specified. Bids may be submitted earlier than the dates(s) and time(s) indicated.

Bids will be opened at the date and time stated in the Notice Inviting Bids, and the amount of each Bid will be read aloud and recorded. All Bidders may, if they desire, attend the opening of Bids. The District may in its sole discretion, elect to postpone the opening of the submitted Bids. District reserves the right to reject any or all Bids and to waive any informality or irregularity in any Bid. In the event of a discrepancy between the written amount of the Bid Price and the numerical amount of the Bid Price, the written amount shall govern.

15. WITHDRAWAL OF BID

Prior to the bid closing deadline, a Bid may be electronically withdrawn by the Bidder.

Any request to withdraw a bid after bid opening must be made in accordance with Public Contract Code section 5100 *et seq.* and must be submitted in writing within five (5) working days, excluding Saturday, Sundays and State holidays, specifying in detail how the mistake was made.

16. BASIS OF AWARD; BALANCED BIDS

The District shall award the Contract to the lowest responsible Bidder submitting a responsive Bid. The District may reject any Bid which, in its opinion when compared to other bids received or to the District's internal estimates, does not accurately reflect the cost to perform the Work. The District may reject as non-responsive any bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items.

17. DISQUALIFICATION OF BIDDERS; INTEREST IN MORE THAN ONE BID

No bidder shall be allowed to make, submit or be interested in more than one bid. However, a person, firm, corporation or other entity that has submitted a sub-proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders submitting a bid to the District. No person, firm, corporation, or other entity may submit sub-proposal to a bidder, or quote prices of materials to a bidder, when also submitting a prime bid on the same Project.

18. INSURANCE REQUIREMENTS

The successful bidder shall procure the insurance in the form and in the amount specified in the Contract Documents.

19. AWARD PROCESS

Once all Bids are opened and reviewed to determine the lowest responsive and responsible Bidder, the District may award the contract, or reject all bids. The apparent successful Bidder should begin to prepare the following documents: (1) the Performance Bond; (2) the Payment Bond; and (3) the required insurance certificates and endorsements. Once the District notifies the Bidder of the intent to award, the Bidder will have ten (10) consecutive calendar days from the date of this notification to execute the Contract and supply the District with all of the required documents and certifications. Regardless whether the Bidder supplies the required documents and certifications in a timely manner, the Contract time will begin to run ten (10) calendar days from the date of the notification. Once the District receives all of the properly drafted and executed documents and certifications from the Bidder, the District shall issue a Notice to Proceed to that Bidder.

20. FILING OF BID PROTESTS

Any bid protest relating to the form or content of the Bid or Contract Documents must be submitted in writing via the electronic bid management system at least ten (10) business days before the original date set for the bid opening. Any bidder who submits a bid without making a protest shall be deemed to have waived any objection to the form of content of the Bid or Contract Documents not previously stated in writing.

Submitted bids will be timely made available for review upon written request of any bidder.

Bidders may file a "protest" of a Bid with the District's General Manager. In order for a Bidder's protest to be considered valid, the protest must:

A. Be filed in writing not later than 5:00 p.m. on the fifth business day after the bid opening date;

B. Clearly identify the specific irregularity or basis for the protest;

C. Specify, in detail, the factual and legal grounds for the protest; and

D. Include all relevant supporting documentation with the protest at time of filing.

If the protest does not meet all of these requirements, the District may reject it without further review.

If the protest is timely and complies with all of the above requirements, the District's General Manger, or other designated District staff or representative, shall review the protest, any response from the challenged bidder, and all other relevant information. The District will provide a written response to the protestor.

The procedure and time limits set forth in this section are mandatory and are the sole and exclusive remedy in the event of a bid protest. Failure to comply with these procedures shall constitute a failure to exhaust administrative remedies and a waiver of any right to further pursue the bid protest, including filing a Government Code Claim or legal proceedings.

21. WORKERS COMPENSATION

Each bidder shall submit the Contractor's Certificate Regarding Workers' Compensation form.

22. RETENTION AND SUBSTITUTION OF SECURITY

The Contract Documents call for monthly progress payments based upon the percentage of the work completed. Unless the District has made findings pursuant to

Public Contract Code section 7201 (that the work included in this Contract is substantially complex, and therefore a retention of 10% shall be withheld from each progress payment as provided by the Contract Documents), the District will retain five percent (5%) of each progress payment as provided by the Contract Documents. At the request and expense of the successful Bidder, the District will substitute securities for the amount so retained in accordance with Public Contract Code Section 22300.

23. PREVAILING WAGES

The District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute the Contract. These rates are on file and available at the District's offices, 6230 Sylvan Road, Citrus Heights, California 95610**,** or may be obtained online at http://www.dir.ca.gov/dlsr. Bidders are advised that a copy of these rates must be posted by the successful Bidder at the job site(s).

If the Work involves federal funds or otherwise requires compliance with the Davis-Bacon Fair Labor Standards Act, the Contractor and all its subcontractors shall pay the higher of the state or federal prevailing wage rates.

24. DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Section 1777.1 or Section 1777.7 of the Labor Code. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the District. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

25. IRAN CONTRACTING ACT CERTIFICATION

Each bidder shall submit the certification required by the Iran Contracting Act of 2010, Public Contract Code section 2200 *et seq.* with its bid. The certification is included in the Contract Documents.

26. PERFORMANCE BOND AND PAYMENT BOND REQUIREMENTS

Within the time specified in the Contract Documents, the Bidder to whom a Contract is awarded shall deliver to the District four identical counterparts of the Performance Bond and Payment Bond in the form supplied by the District and included in the Contract Documents. Failure to do so may, in the sole discretion of District, result in the

forfeiture of the Bid Guarantee. The surety supplying the bond must be an admitted surety insurer, as defined in Code of Civil Procedure Section 995.120, authorized to do business as such in the State of California and satisfactory to the District. The Performance Bond and the Payment Bond shall be for one hundred percent (100%) of the Total Bid Price.

27. REQUEST FOR SUBSTITUTIONS

The successful bidder shall comply with the substitution request provisions set forth in the Special Conditions, including any deadlines for substitution requests **which may occur prior to the bid opening date**.

28. SALES AND OTHER APPLICABLE TAXES, PERMITS, LICENSES AND FEES

Contractor and its subcontractors performing work under this Contract will be required to pay California sales tax and other applicable taxes, and to pay for permits, licenses and fees required by the agencies with authority in the jurisdiction in which the work will be located, unless otherwise expressly provided by the Contract Documents. Bidders shall include all applicable taxes and fees that are in effect or reasonably anticipated on the bid date in their bid price.

29. EXECUTION OF CONTRACT

As required herein, the Bidder to whom an award is made shall execute two identical counterparts of the Contract in the amount determined by the Contract Documents. The District may require appropriate evidence that the persons executing the Contract are duly empowered to do so.

END OF INSTRUCTIONS TO BIDDERS

BID FORM

NAME OF BIDDER:_____

The undersigned, hereby declare that we have carefully examined the location of the proposed Work, and have read and examined the Contract Documents, including all plans, specifications, and all addenda, if any, for the following Project:

HIGHLAND AVENUE AND ROSA VISTA AVENUE
WATER MAIN REPLACEMENT PROJECT

We hereby propose to furnish all labor, materials, equipment, tools, transportation, and services, and to discharge all duties and obligations necessary and required to perform and complete the Project in strict accordance with the Contract Documents for the TOTAL BID PRICE.

In the event the bid schedule requires unit pricing, final payment shall be determined by the District from measured quantities of work performed based upon the unit price.

Bid Item	Description	Quantity	Units	Unit Cost	Price
1	Mobilization. (8% Max.)	1	Lump Sum		
2	Sheeting, shoring and bracing. (1% Max.)	1	Lump Sum		
3	Traffic control plan and implementation. (5% Max.)	1	Lump Sum		
4	Storm water pollution prevention implementation. (1% Max.)	1	Lump Sum		
5	Install 8” Pressure Class 350 Ductile Iron Pipe (PC350 DIP) water main. (Trench depth 60” Max.)	327	Lineal Feet		
6	Install 8” Pressure Class 350 Ductile Iron Pipe (PC350 DIP) water main. (Trench depth greater than 60” Max.)	149	Lineal Feet		
7	Install 8” CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) water main. (Trench depth 60” Max.)	821	Lineal Feet		
8	Install 8” CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) water main. (Trench depth greater than 60” Max.)	25	Lineal Feet		

9	Install 6” Pressure Class 350 Ductile Iron Pipe (PC350 DIP) water main. (Trench depth 60” Max.)	24	Lineal Feet		
10	8” connection to existing 8” water main.	3	Each		
11	8” connection to existing 6” water main.	1	Each		
12	Install 8” resilient wedge gate valve.	6	Each		
13	Install 6” resilient wedge gate valve.	1	Each		
14	Install steamer fire hydrant.	1	Each		
15	Install 1” metered water service.	6	Each		
16	Install 1” water service with curb stop.	16	Each		
17	Abandon 1” water service at meter box.	6	Each		
18	Remove 1” service saddle and install repair band on water main.	3	Each		
19	Remove existing valve box.	1	Each		
20	Install fire hydrant access pad.	1	Each		
21	4” Max. Asphaltic Concrete (AC) paving restoration.	8000	Square Feet		
22	Concrete Restoration.	425	Square Feet		
23	Landscape Restoration.	500	Square Feet		

Bidders must provide pricing for every bid item.

The estimated quantities for unit price items are for purposes of comparing bids only and the District makes no representation that the actual quantities of work performed will not vary from the estimates.

In case of discrepancy between the unit price and the line item cost set forth for a unit price item, the line item cost, calculated at the unit price multiplied by the estimated quantity, shall prevail and shall be utilized as the basis for determining the lowest responsive, responsible bidder. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or is the same amount as the entry in the “Line Item Cost” column, then the amount set forth in the “Line Item Cost” column for the item shall prevail and shall be divided by the estimated

quantity for the item and the price thus obtained shall be the unit price. If any of the above discrepancies exist, the District may recalculate the bid price on the basis of the unit price and the bidder agrees to be bound by such recalculation. Final payment for unit price items shall be determined by the Engineer from measured quantities of work performed based upon the unit price.

TOTAL BID PRICE (BASED ON BID SCHEDULE TOTAL OF UNIT PRICES):

$ _____
Total Bid Price in Numbers

_____
Total Bid Price in Written Form

In case of discrepancy between the written price and the numerical price, the written price shall prevail.

The undersigned agrees that the bid accompanied by this Bid Form constitutes a firm offer to the District which cannot be withdrawn for the number of calendar days indicated in the Notice Inviting Bids from and after the bid opening, or until a Contract for the Work is fully executed by the District and a third party, whichever is earlier.

The Contract duration shall commence on the date stated in the District's Notice to Proceed, and shall be completed by the Contractor in the time specified in the Contract Documents. In no case shall the Contractor commence construction prior to the date stated in the District's Notice to Proceed, or before providing the required bonds and evidence of insurance.

Bidder certifies that it is licensed in accordance with the law providing for the registration of Contractors, License No. _____, Expiration Date _____, class of license _____. Bidder certifies that it and all sub-contractors are registered with the Department of Industrial Relations to perform public work, Registration No. _____ (provide DIR for all sub-contractors, separate pages may be attached as needed). If the bidder is a joint venture, each member of the joint venture must include the above information.

The undersigned acknowledges understanding and full consideration of the electronically issued addenda to the Contract Documents.

1. Attached is the required bid security in the amount of not less than 10% of the Total Bid Price.

2. Attached is the fully executed Non-Collusion Declaration form.

3. Attached is the completed Designation of Subcontractors form.

4. Attached is the completed Bidder Information Form.

5. Attached is the completed Iran Contracting Act Certification.

6. Attached is the completed Contractor's Certificate Regarding Workers' Compensation form.

I hereby certify under penalty of perjury under the laws of the State of California, that all of the information submitted in connection with this Bid and all of the representations made herein are true and correct.

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

*Bidder or its authorized representative shall upload an electronic scanned copy of the executed Bid Form to the electronic bid management system.

END OF BID FORM

CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract.

Name of Bidder _____

Signature _____

Name _____

Title _____

Dated _____

END OF CONTRACTOR'S CERTIFICATE REGARDING WORKERS' COMPENSATION

BID BOND

The makers of this bond are,_____, as Principal, and_____, as Surety and are held and firmly bound unto Citrus Heights Water District, hereinafter called the District, in the penal sum of TEN PERCENT (10%) OF THE TOTAL BID PRICE of the Principal submitted to District for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated _____, 20___, for _____

_____

(INSERT PROJECT NAME).

If the Principal does not withdraw its bid within the time specified in the Contract Documents; and if bid is rejected or, in the alternate, the Principal is awarded the Contract, signs the Contract and provides all documents to the District as required by the Contract Documents; then this obligation shall be null and void. Otherwise, this bond will remain in full force and effect and upon default of the Principal shall be forfeited to the District, it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal shall be the amount of this obligation as herein stated, as liquidated damages.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents shall affect its obligation under this bond, and Surety does hereby waive notice of any such changes.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this ___day of _____, 20___, the name and corporate seal of each corporation.

(Corporate Seal)

_____
Contractor/ Principal

By _____

Title _____

_____

(Corporate Seal) Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate) Title

_____

_____

_____

_____

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)
evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____
_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____
Signer(s) Other Than Named Above

NON-COLLUSION DECLARATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____[date], at _____[city], _____[state].

_____
(Signature)

_____
(Print Name)

_____
(Print Title)

_____
(Date)

END OF NON-COLLUSION DECLARATION

CONTRACTOR INFORMATION AND EXPERIENCE FORM

A. INFORMATION ABOUT BIDDER

Failure to completed all information may render your bid non-responsive. [**Indicate not applicable ("N/A") where appropriate.**]

NOTE: Where Bidder is a joint venture, pages shall be duplicated and information provided for all parties to the joint venture.

1.0 Name of Bidder: _____

2.0 Type, if Entity: _____

3.0 Bidder Address: _____

_____

_____

_____
Facsimile Number Telephone Number

4.0 How many years has Bidder's organization been in business as a Contractor? _____

5.0 How many years has Bidder's organization been in business under its present name? _____

5.1 Under what other or former names has Bidder's organization operated?:_____

6.0 If Bidder's organization is a corporation, answer the following:

6.1 Date of Incorporation:
_____

6.2 State of Incorporation: _____

6.3 President's Name: _____

6.4 Vice-President's Name(s): _____

_____

6.5 Secretary's Name: _____

6.6 Treasurer's Name: _____

7.0 If an individual or a partnership, answer the following:

7.1 Date of Organization:

_____

7.2 Name and address of all partners (state whether general or limited partnership):

_____

_____

_____

8.0 If other than a corporation or partnership, describe organization and name principals:

_____

_____

9.0 List other states in which Bidder's organization is legally qualified to do business.

_____

_____

_____

10.0 What type of work does the Bidder normally perform with its own forces?

_____

_____

11.0 Has Bidder ever failed to complete any work awarded to it? If so, note when, where, and why:

_____

_____

12.0 Within the last five years, has any officer or partner of Bidder's organization ever been an officer or partner of another organization when it failed to complete a contract? If so, attach a separate sheet of explanation:

_____

_____

13.0 List Trade References:

_____

_____

_____

_____

14.0 List Bank References (Bank and Branch Address):

_____

_____

_____

_____

15.0 Name of Bonding Company and Name and Address of Agent:

_____

_____

_____

B. LIST OF CURRENT PROJECTS (Backlog)

[**Duplicate Page if needed for listing additional current projects.**]

Project	Description of Bidder's Work	Completion Date	Cost of Bidder's Work	Contact Name/ Phone Number

C. LIST OF COMPLETED PROJECTS - LAST THREE YEARS

[**Duplicate Page if needed for listing additional completed projects.**]

Please include only those projects which are similar enough to demonstrate Bidder's ability to perform the required Work.

Project Client	Description of Bidder's Work	Period of Performance	Cost of Bidder's Work	Contact Name/ Phone Number

D. EXPERIENCE AND TECHNICAL QUALIFICATIONS QUESTIONNAIRE

Personnel:

The Bidder shall identify the key personnel to be assigned to this project in a

management, construction supervision or engineering capacity.

1. List each person's job title, name and percent of time to be allocated to this project:

   _____

   _____

   _____

2. Summarize each person's specialized education:

   _____

   _____

   _____

3. List each person's years of construction experience relevant to the project:

   _____

   _____

   _____

4. Summarize such experience:

   _____

   _____

   _____

Bidder agrees that personnel named in this Bid will remain on this Project in their designated capacities until completion of all relevant Work, unless substituted by personnel of equivalent experience and qualifications approved in advance by the District.

Additional Bidder's Statements:

If the Bidder feels that there is additional information which has not been included in the questionnaire above, and which would contribute to the qualification review, it may add that information in a statement here or on an attached sheet, appropriately marked:

_____
_____
_____
_____
_____
_____

E. VERIFICATION AND EXECUTION

These Bid Forms shall be executed only by a duly authorized official of the Bidder:

I declare under penalty of perjury under the laws of the State of California that the foregoing information is true and correct:

Name of Bidder _____

Signature _____

Name _____

Title _____

Dated _____

CONTRACTOR INFORMATION AND EXPERIENCE FORM

LIST OF SUBCONTRACTORS FORM

In compliance with the Subletting and Subcontracting Fair Practices Act of the Public Contract Code of the State of California, each bidder shall set forth below: (a) the name, contractor's license number and the location of the place of business of and (b) the portion of the work which will be done by each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work in an amount in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price. Notwithstanding the foregoing, if the work involves streets and highways, then the Contractor shall list each subcontractor who will perform work or labor or render service to Contractor in or about the work in an amount in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price or $10,000, whichever is greater. The District may, within its sole discretion, grant additional time to provide the below requested information.

If no subcontractor is specified for a portion of the Work, or if more than one subcontractor is specified for the same portion of Work, to be performed under the Contract in excess of one-half of one percent (1/2%) of the Contractor's Total Bid Price or $10,000, whichever is greater, or if the work involves streets or highways, then the Contractor shall be deemed to have agreed that it is fully qualified to perform that Work, and that it shall perform that portion itself.

The completed form shall include a Department of Industrial Relations registration number for all subcontractors. Failure to include a registration number may cause the bid to be non-responsive.

Portion of the Work	Subcontractor	Location of Business	% of the Work	License & Registration Numbers

Portion of the Work	Subcontractor	Location of Business	% of the Work	License & Registration Numbers

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

END OF LIST OF SUBCONTRACTORS FORM

IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code section 2200 *et seq.*)

As required by California Public Contract Code section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code section 2200 *et seq.*) is true and correct:

☐ The Contractor is not:

(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of $20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ District has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, District will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The amount of the Contract payable to the Contractor for the Work does not exceed $1,000,000.

Signed_____

Titled_____

Firm_____

Date_____

Note: In accordance with Public Contract Code section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of $250,000 or twice the Contract Price, termination of the Contract and/or ineligibility to bid on contracts for three years.

END OF IRAN CONTRACTING ACT CERTIFICATION

CONTRACT

THIS CONTRACT is made this _____ day of _____, 20__, in the County of Sacramento, State of California, by and between the Citrus Heights Water District, hereinafter called District, and _____, hereinafter called Contractor. The District and the Contractor for the considerations stated herein agree as follows:

ARTICLE 1. SCOPE OF WORK. The Contractor shall perform all Work within the time stipulated the Contract and shall provide all labor, materials, equipment, tools, utility services, and transportation to complete all of the Work required in strict compliance with the Contract Documents as specified in Article 5 below for the following Project:

Corporation Yard Improvement Project

The Contractor and its surety shall be liable to the District for any damages arising as a result of the Contractor's failure to comply with this obligation.

ARTICLE 2. TIME FOR COMPLETION. Time is of the essence in the performance of the Work. The Work shall be commenced on the date stated in the District's Notice to Proceed. The Contractor shall complete all Work required by the Contract Documents within **150** calendar days from the commencement date stated in the Notice to Proceed, herein after the Contract Time. By its signature hereunder, Contractor agrees the Contract Time for completion set forth above is adequate and reasonable to complete the Work.

ARTICLE 3. CONTRACT PRICE. The District shall pay to the Contractor as full compensation for the performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs, the sum of _____ Dollars ($_____), hereinafter the Contract Price. Payment shall be made as set forth in the General Conditions.

ARTICLE 4. LIQUIDATED DAMAGES. The Contractor acknowledges that the District will sustain actual damages for each and every day completion of the Project is delayed beyond the Contract Time. Because of the nature of the Project, it would be impracticable or extremely difficult to determine the District's actual damages. Accordingly, as provided in Government Code section 53069.85, it is agreed that the Contractor will pay the District the sum of **$500.00** for each and every calendar day of delay in completing the Work beyond the time prescribed in the Contract Documents for finishing the Work, as Liquidated Damages and not as a penalty or forfeiture. In the event the Liquidated Damages are not paid, the Contractor agrees the District may deduct that amount from any money due or that may become due the Contractor under the Contract. This Article does not affect the District's rights to other damages or remedies specified in the Contract Documents or allowed by law.

Should Contractor be inexcusably delayed in the performance of the Work, District may deduct Liquidated Damages based on its estimate of when Contractor will achieve Final Completion or other milestones. District need not wait until Final Completion to withhold Liquidated Damages from Contractor.

Liquidated Damages are not a penalty but an agreed upon estimate of the actual damages that would be sustained by the District for delay, including but not limited to loss of revenue, inconvenience to the District and the public, and increased Project administration expenses, such as extra inspection, construction management, staff time and architectural and engineering expenses. Liquidated Damages do not include actual damages the District incurs on account of claims by third parties against the District on account of any delay.

Should money due or to become due to the Contractor be insufficient to cover Liquidated Damages or other offsets due, then Contractor forthwith shall pay the remainder of the assessed liquidated damages to District.

ARTICLE 5. COMPONENT PARTS OF THE CONTRACT. The "Contract Documents" include the following documents, each of which is incorporated into this Contract by reference:

- Notice Inviting Bids
- Instructions to Bidders
- Bid Form
- Contractor's Certificate Regarding Workers' Compensation
- Bid Bond
- Non-Collusion Declaration form
- Contractor Information and Experience Form
- List of Subcontractors Form
- Iran Contracting Act Certification
- Contract
- Performance Bond
- Payment Bond
- General Conditions
- Special Conditions
- General Specifications
- Special Provisions
- Construction Details
- Project Plans
- Encroachment Permit Documents
- Any other documents contained in or incorporated into the Contract

The Contactor shall complete the Work in strict accordance with all of the Contract Documents.

All of the Contract Documents are intended to be complementary. Work required by one of the Contract Documents and not by others shall be done as if required by all. This Contract shall supersede any prior agreement of the parties.

ARTICLE 6. PROVISIONS REQUIRED BY LAW. Each and every provision of law required to be included in these Contract Documents shall be deemed to be included in these Contract Documents. The Contractor shall comply with all requirements of applicable federal, state and local laws, rules and regulations, including but not limited to, the provisions of the California Labor Code and Public Contract Code applicable to this Project.

If the Work involves federal funds, the Contractor and all its subcontractors shall comply with all requirements set forth in the attached Federal Requirements.

ARTICLE 7. INDEMNIFICATION. Contractor shall provide indemnification as set forth in the General Conditions.

ARTICLE 8. PREVAILING WAGES. Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code which such rates shall be made available at the District's offices, 6230 Sylvan Road, Citrus Heights, California 95610**,** or may be obtained online at http//www.dir.ca.gov/dlsr. and which must be posted at the job site.

IN WITNESS WHEREOF, this Contract has been duly executed by the above-named parties, on the day and year above written.

[NAME OF CONTRACTOR]	**CITRUS HEIGHTS WATER DISTRICT**
By _____ Name and Title: _____ License No. _____ DIR Registration No. _____	By_____ Name and Title: _____

END OF CONTRACT

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the Citrus Heights Water District (hereinafter referred to as "District") has awarded to _____, (hereinafter referred to as the "Contractor") _____ an agreement for _____ (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the District in the sum of _____ DOLLARS, ($_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify and save harmless the District, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by District, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship, Surety shall undertake and faithfully fulfill all such obligations. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit

the District's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the District to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the District's option:

(1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or

(2) Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the District, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

(3) Permit the District to complete the Project in any manner consistent with local, California and federal law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the District under the Contract and any modification thereto, less any amount previously paid by the District to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the District may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the District, when declaring the Contractor in default, notifies Surety of the District's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or

addition to the terms of the Contract Documents or to the Project, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__).

(Corporate Seal)

_____
Contractor/ Principal

By _____

Title _____

_____

(Corporate Seal) Surety

By _____
Attorney-in-Fact

Signatures of those signing for the Contractor and Surety must be notarized and evidence of corporate authority attached.

(Attach Attorney-in-Fact Certificate) Title _____

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, $_____.
(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

_____

_____

(Name and Address of Agent or Representative for service of process in California, if different from above) _____

_____

_____

(Telephone number of Surety and Agent or Representative for service of process in California _____

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)
evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____
_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____
Signer(s) Other Than Named Above

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS That

WHEREAS, the Citrus Heights Water District (hereinafter designated as the "District"), by action taken or a resolution passed_____, 20____has awarded to _____ hereinafter designated as the "Principal," a contract for the work described as follows:

_____ (the "Project"); and

WHEREAS, the work to be performed by the Principal is more particularly set forth in the Contract Documents for the Project dated _____ ("Contract Documents"), the terms and conditions of which are expressly incorporated by reference; and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the District in the penal sum of _____ _____ Dollars ($_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Section 9100 of the Civil Code, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Section 18663 of the Revenue and Taxation Code, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified.

This bond shall inure to the benefit of any of the persons named in Section 9100 of the Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of

time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or District and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Section 9100 of the Civil Code, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned and the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

_____
Contractor/ Principal

By _____

Title _____

_____
Surety

(Corporate Seal)

By _____
Attorney-in-Fact

Title _____

Signatures of those signing for the Contractor and Surety must be notified and evidence of corporate authority attached. A Power-of-Attorney authorizing the person signing on behalf of the Surety to do so much be attached hereto.

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA
COUNTY OF _____

On _____, 20___, before me, _____, Notary Public, personally

appeared _____, who proved to me on the basis of satisfactory
Name(s) of Signer(s)
evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

☐ Individual
☐ Corporate Officer

_____
Title(s)

☐ Partner(s) ☐ Limited ☐ General
☐ Attorney-In-Fact
☐ Trustee(s)
☐ Guardian/Conservator
☐ Other:

Signer is representing:
Name Of Person(s) Or Entity(ies)

_____
_____

DESCRIPTION OF ATTACHED DOCUMENT

_____
Title or Type of Document

_____
Number of Pages

_____
Date of Document

_____
Signer(s) Other Than Named Above

GENERAL CONDITIONS

ARTICLE 1. DEFINITIONS

a. Acceptable, Acceptance or words of similar import shall be understood to be the acceptance of the Engineer and/or the District .

b. Act of God is an earthquake of magnitude 3.5 or higher on the Richter scale or a tidal wave.

c. Applicable Laws means laws, statutes, ordinances, rules, codes, regulations permits and licenses of any kind, issued by local, state or federal governmental authorities or private authorities with jurisdiction (including utilities), to the extent they apply to the Work.

d. Approval means written authorization by Engineer and/or District .

e. Contract Documents includes all documents as stated in the Contract.

f. Day shall mean calendar day unless otherwise specifically designated.

g. District and Contractor are those stated in the Contract. The terms District, CHWD, and Owner may be used interchangeably.

h. Engineer shall mean the District Engineer or his or her designee, of Citrus Heights Water District, acting either directly or through properly authorized agents, such as agents acting within the scope of the particular duties entrusted to them. Also sometimes referred to as the "District's Representative" or "Representative" in the Contract Documents.

i. Equal, Equivalent, Satisfactory, Directed, Designated, Selected, As Required and similar words shall mean the written approval, selection, satisfaction, direction, or similar action of the Engineer and/or District.

j. Indicated, Shown, Detailed, Noted, Scheduled or words of similar meaning shall mean that reference is made to the drawings, unless otherwise noted. It shall be understood that the direction, designation, selection, or similar import of the Engineer and/or District is intended, unless stated otherwise.

k. Install means the complete installation of any item, equipment or material.

l. Material shall include machinery, equipment, manufactured articles, or construction such as form work, fasteners, etc., and any other classes of material to be furnished in connection with the Contract. All materials shall be new unless specified otherwise.

m. Perform shall mean that the Contractor, at Contractor's expense, shall take all actions necessary to complete The Work, including furnishing of necessary labor, tools, and equipment, and providing and installing Materials that are indicated, specified, or required to complete such performance.

n. Project is The Work planned by District as provided in the Contract Documents.

o. Provide shall include provide complete in place, that is furnish, install, test and make ready for use.

p. Recyclable Waste Materials shall mean materials removed from the Project site which are required to be diverted to a recycling center rather than an area landfill. Recyclable Waste Materials include asphalt, concrete, brick, concrete block, and rock. The Contractor shall coordinate with the appropriate local government agency and comply with local waste disposal ordinances.

q. Specifications means that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the work. In the case of conflict between the specifications and the Contract Documents, the Contract Documents shall prevail.

r. The Work means the entire improvement planned by the District pursuant to the Contract Documents.

s. Work means labor, equipment and materials incorporated in, or to be incorporated in the construction covered by the Contract Documents.

ARTICLE 2. CONTRACT DOCUMENTS

a. **Contract Documents**. The Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all.

b. **Interpretations**. The Contract Documents are intended to be fully cooperative and to be complementary. If Contractor observes that any documents are in conflict, the Contractor shall promptly notify the Engineer in writing. In case of conflicts between the Contract Documents, the order of precedence shall be as follows:

1. Change Orders or Work Change Directives, the most recent first
2. Addenda, the most recent first
3. Environmental documents and approvals
4. Special Provisions (or Special Conditions)
5. Technical Specifications
6. Plans (Contract Drawings)
7. Contract
8. General Conditions

9. Instructions to Bidders
10. Notice Inviting Bids
11. Contractor's Bid Forms
12. Standard Specifications/Greenbook
13. Standard Plans
14. Reference Documents

With reference to the Drawings, the order of precedence shall be as follows:

1. Figures govern over scaled dimensions
2. Detail drawings govern over general drawings
3. Addenda or Change Order drawings govern over Contract Drawings
4. Contract Drawings govern over Standard Drawings
5. Contract Drawings govern over Shop Drawings

c. **Conflicts in Contract Documents**. Notwithstanding the orders of precedence established above, in the event of conflicts, the higher standard shall always apply.

d. **Organization of Contract Documents**. Organization of the Contract Documents into divisions, sections, and articles, and arrangement of drawings shall not control the Contractor in dividing The Work among subcontractors or in establishing the extent of Work to be performed by any trade.

ARTICLE 3. CONTRACTS DOCUMENTS: COPIES & MAINTENANCE

Contractor will be furnished, free of charge, **3 (three)** copies of the Contract Documents. Additional copies may be obtained at cost of reproduction.

ARTICLE 4. CONTRACTOR SHALL MAINTAIN A CLEAN, UNDAMAGED SET OF CONTRACT DOCUMENTS AT THE PROJECT SITE.

a. **Examination of Contract Documents.** Before commencing any portion of The Work, Contractor shall again carefully examine all applicable Contract Documents, the Project site and other information given to Contractor as to materials and methods of construction and other Project requirements. Contractor shall immediately notify the Engineer in writing of any potential error, inconsistency, ambiguity, conflict or lack of detail or explanation. If Contractor performs, permits, or causes the performance of any Work which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction. In no case shall the Contractor or any subcontractor proceed with Work if uncertain as to the applicable requirements.

b. **Request for Information; Additional Instructions.** Contractor may make a written request for information to address any error, inconsistency, ambiguity,

conflict or lack of detail or explanation in the Contract Documents. The Engineer will provide any required additional instructions, by means of drawings or other written direction, necessary for proper execution of Work.

c. **Quality of Parts, Construction and Finish.** All parts of The Work shall be of the best quality of their respective kinds and the Contractor must use all diligence to inform itself fully as to the required construction and finish. In no case shall Contractor proceed with The Work without obtaining first from the Engineer such written Approval as may be necessary for the proper performance of Work.

d. **Contractor's Variation from Contract Document Requirements.** If it is found that the Contractor has varied from the requirements of the Contract Documents including the requirement to comply with all Applicable Laws, ordinances, rules and regulations, the Engineer may at any time, before or after completion of the Work, order the improper Work removed, remade or replaced by the Contractor at the Contractor's expense.

ARTICLE 5. EXISTENCE OF UTILITIES AT THE WORK SITE

a. **Existing Utilities**

i. General – Known existing utilities and pipelines are shown on the Plans in their approximate locations. However, nothing herein shall be deemed to require the District to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities can be inferred from the presence of other visible facilities, such as buildings, cleanouts, meter and junction boxes, on or adjacent to the site of the Project.

ii. The District will assume the responsibility for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Project site if such utilities are not identified by the District in the Contract Documents or cannot reasonably be inferred from the presence of other visible facilities.

b. **Utility Location**

i. It shall be the Contractor's responsibility to determine the exact location and depth of all utilities, including service connections, which have been marked by the respective utility owners and which the Contractor believes may affect or be affected by the Contractor's operations. The Contractor shall not be entitled to additional compensation or time extensions for work necessary to avoid interferences or for repair to damaged utilities if the Contractor does not expose all such existing utilities as required by this section.

ii. The locating of utilities shall be in conformance with Government Code section 4216 except for the District's utilities located on the District's property and not in public right-of-way.

iii. A "High Priority Subsurface Installation" is defined in section 4216 (e) as "high-pressure natural gas pipelines with normal operating pressures greater than 415kPA gauge (60psig) or greater than six inches nominal pipe diameter, petroleum pipelines, pressurized sewage pipelines, high-voltage electric supply lines, conductors, or cables that have a potential to ground of greater than or equal to 60kv, or hazardous materials pipelines that are potentially hazardous to workers or the public if damaged."

iv. A "Subsurface Installation" is defined in section 4216 (l) as "any underground pipeline, conduit, duct, wire, or other structure, except non-pressurized sewer lines, non-pressurized storm drains, or other non-pressurized drain lines."

v. Pursuant to Government Code section 4216.2 the Contractor shall contact the appropriate regional notification center at least two (2) working days but not more than fourteen (14) Days before performing any excavation. The Contractor shall request that the utility owners conduct a utility survey and mark or otherwise indicate the location of their service. The Contractor shall furnish to the District written documentation of its contact(s) with the regional notification center prior to commencing excavation at such locations.

vi. After the utility survey is completed, the Contractor shall commence "potholing" or hand digging to determine the actual location of the pipe, duct, or conduit. The District shall be given written notice prior to commencing potholing operations. The Contractor shall uncover all piping and conduits, to a point one (1) foot below the pipe, where crossings, interferences, or connections are shown on the Drawings, prior to trenching or excavating for any pipe or structures, to determine actual elevations. New pipelines shall be laid to such grade as to clear all existing facilities, which are to remain in service for any period subsequent to the construction of the run of pipe involved.

vii. The Contractor's attention is directed to the requirements of Government Code section 4216.2 (a)(2) which provides: "When the excavation is proposed within 10 feet of a high priority subsurface installation, the operator of the high priority subsurface installation shall notify the excavator of the existence of the high priority subsurface installation prior to the legal excavation start date and time, as such date and time are authorized pursuant to paragraph (1) of subdivision (a) of section 4216.2. The excavator and the operator or its representative shall conduct an

onsite meeting at a mutually-agreed-on time to determine actions or activities required to verify the location of the high priority subsurface installation prior to start time." The Contractor shall notify the District in advance of this meeting.

c. **Utility Relocation and Repair**

i. If interferences occur at locations other than those indicated in the Contract Documents with reasonable accuracy, Contractor shall notify the District in writing.

ii. Care shall be exercised by the Contractor to prevent damage to adjacent existing facilities and public or private works; where equipment will pass over these obstructions, suitable planking shall be placed. If high priority subsurface installations are damaged and the operator cannot be contacted, Contractor shall call 911 emergency services.

iii. District will compensate the Contractor for the costs of locating and repairing damage not due to the failure of the Contractor to exercise reasonable care, and for removing or relocating such main or trunk line utility facilities not indicated in the Contract Documents with reasonable accuracy, and for the cost of equipment on the Project necessarily idled during such work. The payment for such costs will be made as provided in ARTICLE 46 (Changes and Extra Work). The Contractor shall not be assessed liquidated damages for delay in completion of the Project when such delay is caused by the failure of the District or utility company to provide for removal or relocation of such utility facilities. Requests for extensions of time arising out of utility relocation or repair delays shall be filed in accordance with ARTICLE 46.

iv. The public utility, where they are the owner of the affected utility, shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price. The right is reserved to the District and the owners of utilities or their authorized agents to enter upon the Work area for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct its operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such forces and shall allow the respective utilities time to relocate their facility.

v. When the Contract Documents indicate that a utility is to be relocated, altered or constructed by others, the District will conduct all negotiations

with the utility company and the work will be done at no cost to the Contractor, unless otherwise stipulated in the Contract.

vi. Temporary or permanent relocation or alteration of utilities desired by the Contractor for its own convenience shall be the Contractor's responsibility and it shall make arrangements and bear all costs for such work.

ARTICLE 6. SCHEDULE

a. **General Requirements.** The schedule shall be prepared in a Critical Path Method ("CPM") format and in an electronic scheduling program acceptable to the District. Contractor shall deliver the schedule and all updates to the District in both paper and electronic form. The electronic versions shall be in the format and include all data used to prepare the schedule; pdf. Copies are not acceptable.

b. **Initial Schedule.** Within ten (10) days after the issuance of the Notice to Proceed, Contractor shall prepare a schedule for the performance of the Work and shall submit this to the Engineer for Approval. The receipt or Approval of any schedules by the Engineer or the District shall not in any way relieve the Contractor of its obligations under the Contract Documents. The Contractor is fully responsible to determine and provide for any and all staffing and resources at levels which allow for good quality and timely completion of the Project. Contractor's failure to incorporate all elements of Work required for the performance of the Contract or any inaccuracy in the schedule shall not excuse the Contractor from performing all Work required for a completed Project within the specified Contract time period. If the required schedule is not received by the time the first payment under the Contract is due, Contractor shall not be paid until the schedule is received, reviewed and accepted by the Engineer.

c. **Schedule Contents.** The schedule shall allow enough time for inclement weather that can reasonably be expected at the Site. The schedule shall indicate the beginning and completion dates of all phases of construction; critical path for all critical, sequential time related activities; and "float time" for all "slack" or "gaps" in the non-critical activities. The schedule shall clearly identify all staffing and other resources which in the Contractor's judgment are needed to complete the Project within the Contract Time. Schedule duration shall match the Contract Time. Schedules indicating early completion will be rejected.

d. **Schedule Updates.** Contractor shall continuously update its construction schedule to show the actual status of the Work and incorporate changes in the Work. Contractor shall submit an updated and accurate construction schedule to the Engineer whenever requested to do so by Engineer and with each progress payment request. The Engineer may withhold progress payments or other

amounts due under the Contract Documents if Contractor fails to submit an updated and accurate construction schedule.

ARTICLE 7. SUBSTITUTIONS

a. Pursuant to Public Contract Code Section 3400(b) the District may make a finding that is described in the invitation for bids that designates certain products, things, or services by specific brand or trade name.

b. Unless specifically designated in the Contract Documents, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer for substitution any material, process or article which shall be substantially equal or better in every respect to that so indicated or specified in the Contract Documents. However, the District may have adopted certain uniform standards for certain materials, processes and articles.

c. Contractor shall submit written requests, together with substantiating data, for substitution of any "or equal" material, process or article no later than thirty-five (35) days after award of the Contract. To facilitate the construction schedule and sequencing, some requests may need to be submitted before thirty-five (35) days after award of Contract. Provisions regarding submission of "or equal" requests shall not in any way authorize an extension of time for performance of this Contract. If a proposed "or equal" substitution request is rejected, Contractor shall be responsible for providing the specified material, process or article without adjustment to the Contract Price or Contract Time. The burden of proof as to the equality of any material, process or article shall rest with the Contractor. The District has the complete and sole discretion to determine if a material, process or article is an "or equal" material, process or article that may be substituted.

d. Data required to substantiate requests for substitutions of an "or equal" material, process or article data shall include a signed affidavit from the Contractor stating that, and describing how, the substituted "or equal" material, process or article is equivalent to that specified in every way except as listed on the affidavit. Substantiating data shall include any and all illustrations, specifications, and other relevant data including catalog information which describes the requested substituted "or equal" material, process or article, and substantiates that it is an "or equal" to the material, process or article. The substantiating data must also include information regarding the durability and lifecycle cost of the requested substituted "or equal" material, process or article. Failure to submit all the required substantiating data, including the signed affidavit, to the District in a timely fashion will result in the rejection of the proposed substitution.

e. The Contractor shall bear all of the District's costs associated with the review of substitution requests.

f. The Contractor shall be responsible for all costs related to a substituted "or equal" material, process or article.

g. Contractor is directed to the Special Conditions (if any) to review any findings made pursuant to Public Contract Code section 3400.

ARTICLE 8. SHOP DRAWINGS

a. Contractor shall check and verify all field measurements and shall submit with such promptness as to provide adequate time for review and cause no delay in his own Work or in that of any other contractor, subcontractor, or worker on the Project, three (3) hard copies and one electronic copy of all shop or setting drawings, calculations, schedules, and materials list, and all other provisions required by the Contract. Contractor shall sign all submittals affirming that submittals have been reviewed and approved by Contractor prior to submission to Engineer. Each signed submittal shall affirm that the submittal meets all the requirements of the Contract Documents except as specifically and clearly noted and listed on the cover sheet of the submittal.

b. Contractor shall make any corrections required by the Engineer, and file with the Engineer three (3) hard copies and one electronic copy each, and furnish such other copies as may be needed for completion of the Work. Engineer's approval of shop drawings shall not relieve Contractor from responsibility for deviations from the Contract Documents unless Contractor has, in writing, called Engineer's attention to such deviations at time of submission and has secured the Engineer's written Approval. Engineer's Approval of shop drawings shall not relieve Contractor from responsibility for errors in shop drawings.

ARTICLE 9. SUBMITTALS

a. Contractor shall furnish to the Engineer for approval, prior to purchasing or commencing any Work, a log of all samples, material lists and certifications, mix designs, schedules, and other submittals, as required in the specifications. The log shall indicate whether samples will be provided in accordance with other provisions of this Contract.

b. Contractor will provide samples and submittals, together with catalogs and supporting data required by the Engineer, to the Engineer within a reasonable time period to provide for adequate review and avoid delays in the Work.

c. These requirements shall not authorize any extension of time for performance of this Contract. Engineer will check and approve such samples, but only for conformance with design concept of work and for compliance with information

given in the Contract Documents. Work shall be in accordance with approved samples and submittals.

d. Contractor shall not be entitled to any extension of the Contract Time on account of the requirements of ARTICLE 9.

ARTICLE 10. MATERIALS

a. Except as otherwise specifically stated in the Contract Documents, Contractor shall provide and pay for all materials, labor, tools, equipment, water, lights, power, transportation, superintendence, temporary constructions of every nature, and all other services and facilities of every nature whatsoever necessary to execute and complete this Contract within the Contract Time.

b. Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted and/or specified, and workmanship shall be of good quality.

c. Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of The Work and shall be stored properly and protected as required by the Contract Documents. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or Work.

d. No materials, supplies, or equipment for Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the Project, to the District free from any claims, liens, or charges.

e. Materials shall be stored on the Project site in such manner so as not to interfere with any operations of the District or any independent contractor.

ARTICLE 11. CONTRACTOR'S SUPERVISION

Contractor shall continuously keep at the Project site, a competent and experienced full-time Project superintendent approved by the District. Superintendent must be able to proficiently speak, read and write in English. Contractor shall continuously provide efficient supervision of the Project.

ARTICLE 12. WORKERS

a. Contractor shall at all times enforce strict discipline and good order among its employees and subcontractors. Contractor shall not employ or allow

subcontractors to employ on the Project any unfit person or any one not skilled in the Work assigned to him or her.

b. Any person in the employ of the Contractor whom the District may deem incompetent or unfit shall be dismissed from The Work and shall not be employed on this Project except with the written Approval of the District.

ARTICLE 13. SUBCONTRACTORS

a. Contractor agrees to bind every subcontractor to the terms of the Contract Documents as far as such terms are applicable to subcontractor's portion of The Work. Contractor shall be as fully responsible to the District for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by its subcontractors, as Contractor is for acts and omissions of persons directly employed by Contractor. Nothing contained in these Contract Documents shall create any contractual relationship between any subcontractor and the District.

b. The District reserves the right to Approve all subcontractors. The District's Approval of any subcontractor under this Contract shall not in any way relieve Contractor of its obligations in the Contract Documents.

c. Prior to substituting any subcontractor listed in the Bid Forms, Contractor must comply with the requirements of the Subletting and Subcontracting Fair Practices Act pursuant to California Public Contract Code section 4100 et seq.

ARTICLE 14. VERIFICATION OF EMPLOYMENT ELIGIBILITY

By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subcontractors, sub-subcontractors and consultants to comply with the same. Each person executing this Contract on behalf of Contractor verifies that he or she is a duly authorized officer of Contractor and that any of the following shall be grounds for the District to terminate the Contract for cause: (1) failure of the Contractor or its subcontractors, sub-subcontractors or consultants to meet any of the requirements provided for in this ARTICLE 14; (2) any misrepresentation or material omission concerning compliance with such requirements; or (3) failure to immediately remove from the Work any person found not to be in compliance with such requirements.

ARTICLE 15. PERMITS AND LICENSES

Permits and licenses necessary for prosecution of The Work shall be secured and paid for by Contractor, unless otherwise specified in the Contract Documents.

a. Contractor shall obtain and pay for all other permits and licenses required for The Work, including excavation permit and permits for plumbing, mechanical and electrical work and for operations in or over public streets or right of way under jurisdiction of public agencies other than the District.

b. The Contractor shall arrange and pay for all off-site inspection of the Work related to permits and licenses, including certification, required by the specifications, drawings, or by governing authorities, except for such off-site inspections delineated as the District's responsibility pursuant to the Contract Documents.

c. Before Acceptance of the Project, the Contractor shall submit all licenses, permits, certificates of inspection and required approvals to the District.

ARTICLE 16. UTILITY USAGE

a. All temporary utilities, including but not limited to electricity, water, gas, and telephone, used on the Work shall be furnished and paid for by Contractor. Contractor shall Provide necessary temporary distribution systems, including meters, if necessary, from distribution points to points on The Work where the utility is needed. Upon completion of The Work, Contractor shall remove all temporary distribution systems.

b. Contractor shall provide necessary and adequate utilities and pay all costs for water, electricity, gas, oil, and sewer charges required for completion of the Project, including but not limited to startup and testing required in the Contract Documents.

c. All permanent meters Installed shall be listed in the Contractor’s name until Project Acceptance.

d. If the Contract is for construction in existing facilities, Contractor may, with prior written Approval of the District, use the District’s existing utilities. If Contractor uses District utilities, it shall compensate the District for utilities used by Contractor.

ARTICLE 17. INSPECTION FEES FOR PERMANENT UTILITIES

All inspection fees and other municipal charges for permanent utilities including, but not limited to, sewer, electrical, phone, gas, water, and irrigation shall be paid for by the District. Contractor shall be responsible for arranging the payment of such fees, but inspection fees and other municipal fees relating to permanent utilities shall be paid by the District. Contractor may either request reimbursement from the District for such fees, or shall be responsible for arranging and coordination with District for the payment of such fees.

ARTICLE 18. TRENCHES

a. Trenches Five Feet or More in Depth. The Contractor shall submit to the District, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five feet or more in depth. If the plan varies from shoring system standards, the plan shall be prepared by a registered civil or structural engineer. The plan shall not be less effective than the shoring, bracing, sloping, or other provisions of the Construction Safety Orders, as defined in the California Code of Regulations, and all costs therefor shall be included in the Contract Price. Nothing in this section shall be deemed to allow the use of a shoring, bracing, sloping or other protective system less effective than that required by the Construction Safety Orders. Nothing in this section shall be construed to impose a tort liability on the owner, any of its officers, officials, partners, employees, agents, consultants or volunteers. The Owner's review of the Contractor's excavation plan is only for general conformance to the Construction Safety Orders and does not relieve the Contractor of any obligation hereunder. Prior to commencing any excavation, the Contractor shall designate in writing to the District the "competent person(s)" with authority and responsibilities designated in the Construction Safety Orders.

b. Excavations Deeper than Four Feet. If work under this Contract involves digging trenches or other excavation that extends deeper than four feet below the surface, Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any:

1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

2) Subsurface or latent physical conditions at the site differing from those indicated by information made available to bidders prior to the deadline for submitting bids.

3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The District shall promptly investigate the conditions, and if it finds that the conditions do so materially differ, or do involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of The Work, shall issue a change order under the procedures described in the Contract Documents.

In the event that a dispute arises between the District and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of The Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the parties.

ARTICLE 19. DIVERSION OF RECYCLABLE WASTE MATERIALS

In compliance with the applicable District's waste reduction and recycling efforts, Contractor shall divert all Recyclable Waste Materials to appropriate recycling centers. Contractor will be required to submit weight tickets and written proof of diversion with its monthly progress payment requests. Contractor shall complete and execute any certification forms required by District or other applicable agencies to document Contractor's compliance with these diversion requirements. All costs incurred for these waste diversion efforts shall be the responsibility of the Contractor. The Contractor shall coordinate with the appropriate local government agency and comply with local waste disposal ordinances.

ARTICLE 20. REMOVAL OF HAZARDOUS MATERIALS

Should Contractor encounter material reasonably believed to be polychlorinated biphenyl (PCB) or other toxic wastes and hazardous materials (as defined in section 25117 of the Health and Safety Code) which have not been rendered harmless at the Project site, the Contractor shall immediately stop work at the affected Project site and shall report the condition to the District in writing. The District shall contract for any services required to directly remove and/or abate PCBs and other toxic wastes and hazardous materials, if required by the Project site(s), and shall not require the Contractor to subcontract for such services. The Work in the affected area shall not thereafter be resumed except by written agreement of the District and Contractor.

ARTICLE 21. SANITARY FACILITIES

Contractor shall provide sanitary temporary toilet buildings for the use of all workers. All toilets shall comply with local codes and ordinances. Toilets shall be kept supplied with toilet paper and shall have workable door fasteners. Toilets shall be serviced no less than once weekly and shall be present in a quantity of not less than 1 per 20 workers as required by CAL-OSHA regulation. The toilets shall be maintained in a sanitary condition at all times. Use of toilet facilities in The Work under construction shall not be permitted. Any other Sanitary Facilities required by CAL-OSHA shall be the responsibility of the Contractor.

ARTICLE 22. AIR POLLUTION CONTROL

Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes. All containers of paint, thinner, curing compound, solvent or liquid asphalt shall be labeled to indicate that the contents fully comply with the applicable material requirements. Without limiting the foregoing, Contractor must fully comply with all Applicable Laws, rules and regulations in furnishing or using equipment and/ or providing services, including but not limited to, emissions limits and permitting requirements imposed by the Air Quality Management District with jurisdiction over the Project and/ or California Air Resources Board (CARB). Contractor shall specifically be aware of the application of these limits and requirements to "portable equipment" which definition is considered to include any item of equipment with a fuel-powered engine. Contractor shall indemnify District against any fines or penalties imposed by the air quality management district, CARB, or any other governmental or regulatory agency for its violations of Applicable laws as well as those of its subcontractors or others for whom Contractor is responsible under its indemnity obligations provided for in ARTICLE 48.

ARTICLE 23. COMPLIANCE WITH STATE STORM WATER PERMIT

a. Contractor shall be required to comply with all conditions of the State Water Resources Control Board ("State Water Board") Water Quality Order No. 2009-00009-DWQ as modified by Order No. 2010-0014-DWQ, National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Storm Water Discharges Associated with Construction Activity ("Permit") for all construction activity which results in the disturbance of in excess of one acre of total land area or which is part of a larger common area of development or sale. Contractor shall be responsible for filing the Notice of Intent and for obtaining the Permit. Contractor shall be solely responsible for preparing and implementing a Storm Water Pollution Prevention Plan ("SWPPP") prior to initiating Work. In bidding on this Contract, it shall be Contractor's responsibility to evaluate the cost of procuring the Permit and preparing the SWPPP as well as complying with the SWPPP and any necessary revision to the SWPPP. Contractor shall comply with all requirements of the State Water Resources Control Board. Contractor shall include all costs of compliance with specified requirements in the Contract amount.

b. Contractor shall be responsible for procuring, implementing and complying with the provisions of the Permit and the SWPPP, including the standard provisions, monitoring and reporting requirements as required by the Permit. Contractor shall provide copies of all reports and monitoring information to the Engineer.

c. Contractor shall comply with the lawful requirements of any applicable municipality, the District, drainage District, and other local agencies regarding discharges of storm water to separate storm drain system or other watercourses

under their jurisdiction, including applicable requirements in municipal storm water management programs.

d. Storm, surface, nuisance, or other waters may be encountered at various times during construction of The Work. Therefore, the Contractor, by submitting a Bid, hereby acknowledges that it has investigated the risk arising from such waters, has prepared its Bid accordingly, and assumes any and all risks and liabilities arising therefrom.

e. Failure to comply with the Permit is in violation of federal and state law. Contractor hereby agrees to indemnify and hold harmless District, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which District, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the Permit arising out of or in connection with the Project, except for liability resulting from the sole established negligence, willful misconduct or active negligence of the District, its officials, officers, agents, employees or authorized volunteers. District may seek damages from Contractor for delay in completing the Contract in accordance with the Contract Documents, caused by Contractor's failure to comply with the Permit.

ARTICLE 24. CLEANING UP

a. Contractor at all times shall keep premises free from debris such as waste, rubbish, and excess materials and equipment. Contractor shall not store debris under, in, or about the premises. The contractor shall also remove temporary fencing, barricades, planking and construction toilet and similar temporary facilities from site. Contractor shall also clean all buildings, asphalt and concrete areas to the degree necessary to remove oil, grease, fuel, or other stains caused by Contractor operations or equipment.

b. Contractor shall fully clean up the site at the completion of The Work. If the Contractor fails to immediately clean up at the completion of The Work, the District may do so and the cost of such clean up shall be charged back to the Contractor.

ARTICLE 25. LAYOUT AND FIELD ENGINEERING

All field engineering required for laying out The Work and establishing grades for earthwork operations shall be furnished by the District at its expense. Layout shall be done by a qualified individual Approved by the Engineer. Any required "as-built" drawings of civil engineering elements of the Work shall be prepared by a registered civil engineer.

ARTICLE 26. EXCESSIVE NOISE

a. The Contractor shall use only such equipment on the work and in such state of repair so that the emission of sound therefrom is within the noise tolerance level of that equipment as established by CAL-OSHA.

b. The Contractor shall comply with the most restrictive of the following: (1) local sound control and noise level rules, regulations and ordinances and (2) the requirements contained in these Contract Documents, including hours of operation requirements. No internal combustion engine shall be operated on the Project without a muffler of the type recommended by the manufacturer. Should any muffler or other control device sustain damage or be determined to be ineffective or defective, the Contractor shall promptly remove the equipment and shall not return said equipment to the job until the device is repaired or replaced. Said noise and vibration level requirements shall apply to all equipment on the job or related to the job, including but not limited to, trucks, transit mixers or transit equipment that may or may not be owned by the Contractor.

c. The Contractor shall comply with all the environmental provisions contained in the Contract Documents.

ARTICLE 27. TESTS AND INSPECTIONS

a. If the Contract Documents, the Engineer, or any instructions, laws, ordinances, or public authority require any part of The Work to be tested or Approved, Contractor shall provide the Engineer at least two (2) working days' notice of its readiness for observation or inspection. If inspection is by a public authority other than the District, Contractor shall promptly inform the District of the date fixed for such inspection. Required certificates of inspection (or similar) shall be secured by Contractor. Costs for District testing and District inspection shall be paid by the District. Costs of tests for Work found not to be in compliance with the Contract Documents or Applicable Law shall be paid by the Contractor.

b. If any Work is done or covered up without the required testing or approval, the Contractor shall uncover or deconstruct the Work, and the Work shall be redone after completion of the testing at the Contractor's cost in compliance with the Contract Documents, at the Contractor's cost.

c. Where inspection and testing are to be conducted by an independent laboratory or agency, materials or samples of materials to be inspected or tested shall be selected by such laboratory or agency, or by the District, and not by Contractor. All tests or inspections of materials shall be made in accordance with the commonly recognized standards of national organizations.

d. In advance of manufacture of materials to be supplied by Contractor which must be tested or inspected, Contractor shall notify the District so that the District may

arrange for testing at the source of supply. Any materials which have not satisfactorily passed such testing and inspection shall not be incorporated into The Work.

e. If the manufacture of materials to be inspected or tested will occur in a plant or location outside the geographic limits of District, the Contractor shall pay for any excessive or unusual costs associated with such testing or inspection, including but not limited to excessive travel time, standby time and required lodging.

f. Reexamination of Work may be ordered by the District. If so ordered, Work must be uncovered or deconstructed by Contractor. If Work is found to be in accordance with the Contract Documents, the District shall pay the costs of reexamination and reconstruction. If such work is found not to be in accordance with the Contract Documents, Contractor shall pay all costs.

ARTICLE 28. PROTECTION OF WORK AND PROPERTY

a. The Contractor shall be responsible for all damages to persons or property that occur as a result of The Work. Contractor shall be responsible for the proper care and protection of all materials delivered and Work performed until completion and final Acceptance by the District. All Work shall be solely at the Contractor's risk. Contractor shall adequately protect adjacent property from settlement or loss of lateral support as necessary. Contractor shall comply with all applicable safety laws and building codes to prevent accidents or injury to persons on, about, or adjacent to the Project site where Work is being performed. Contractor shall erect and properly maintain at all times, as required by field conditions and progress of work, all necessary safeguards, signs, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created in the course of construction.

b. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act to prevent such threatened loss or injury; and Contractor shall so act, without appeal, if so authorized or instructed by the Engineer or the District. Any compensation claimed by Contractor on account of emergency work shall be determined by and agreed upon by the District and the Contractor in accordance with ARTICLE 46.

c. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions.

d. Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, and other adjoining property and structures, and to avoid damage thereto, and Contractor shall repair any damage thereto caused by The Work operations. Contractor shall:

1) Enclose the working area with a substantial barricade, and arrange work to cause minimum amount of inconvenience and danger to the public.

2) Provide substantial barricades around any shrubs or trees indicated to be preserved.

3) Deliver materials to the Project site over a route designated by the Engineer.

4) Provide any and all dust control required and follow the Applicable air quality regulations as appropriate. If the Contractor does not comply, the District shall have the immediate authority to provide dust control and deduct the cost from payments to the Contractor.

5) Confine Contractor's apparatus, the storage of materials, and the operations of its workers to limits required by law, ordinances, permits, or directions of the Engineer. Contractor shall not unreasonably encumber the Project site with its materials.

6) Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by an approved civil engineer or land surveyor, at no cost to the District.

7) Ensure that existing facilities, fences and other structures are all adequately protected and that, upon completion of all Work, all facilities that may have been damaged are restored to a condition acceptable to the District.

8) Preserve and protect from injury all buildings, pole lines and all direction, warning and mileage signs that have been placed within the right-of-way.

9) At the completion of work each day, leave the Project site in a clean, safe condition.

10) Comply with any stage construction and traffic handling plans. Access to residences and businesses shall be maintained at all times.

These precautionary measures will apply continuously and not be limited to normal working hours. Full compensation for the Work involved in the preservation of life, safety and property as above specified shall be considered as included in the prices paid for the various contract items of Work, and no additional allowance will be made therefor.

e. Should damage to persons or property occur as a result of The Work, Contractor shall promptly notify the District, in writing. Contractor shall be responsible for

proper investigation, documentation, including video or photography, to adequately memorialize and make a record of what transpired. The District shall be entitled to inspect and copy any such documentation, video, or photographs.

ARTICLE 29. CONTRACTORS MEANS AND METHODS

Contractor is solely responsible for the means and methods utilized to Perform The Work. In no case shall the Contractor's means and methods deviate from commonly used industry standards.

ARTICLE 30. AUTHORIZED REPRESENTATIVES

The District shall designate representatives, who shall have the right to be present at the Project site at all times. The District may designate an inspector who shall have the right to observe all of the Contractor's Work. The inspector is not authorized to make changes in the Contract Documents or excuse Contractor from performing in accordance with the Contract Documents. The inspector shall not be responsible for the Contractor's failure to carry out The Work in accordance with the Contract Documents. Contractor shall provide safe and proper facilities for such access.

ARTICLE 31. HOURS OF WORK

a. Eight (8) hours of work shall constitute a legal day's work. The Contractor and each subcontractor shall forfeit, as penalty to the District, twenty-five dollars ($25) for each worker employed in the execution of Work by the Contractor or any subcontractor for each day during which such worker is required or permitted to work more than eight (8) hours in any one day and forty (40) hours in any week in violation of the provisions of the Labor Code, and in particular, Section 1810 to Section 1815, except as provided in Labor Code Section 1815.

b. Work shall be accomplished on a regularly scheduled eight (8) hour per day work shift basis, Monday through Friday, between the hours of 7:00 a.m. and 5:00 p.m.

c. It shall be unlawful for any person to operate, permit, use, or cause to operate any of the following at the Project site, other than between the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, with no Work allowed on District-observed holidays, unless otherwise Approved by the Engineer:

    1) Powered Vehicles

    2) Construction Equipment

    3) Loading and Unloading Vehicles

    4) Domestic Power Tools

ARTICLE 32. PAYROLL RECORDS

a. Pursuant to Labor Code Section 1776, the Contractor and each subcontractor shall maintain weekly certified payroll records showing the name, address, social security number, work classification, straight time and overtime hours paid each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed in connection with the work. Contractor shall certify under penalty of perjury that records maintained and submitted by Contractor are true and accurate. Contractor shall also require subcontractor(s) to certify weekly payroll records under penalty of perjury.

b. The payroll records described herein shall be certified and submitted by the Contractor at a time designated by the District. The Contractor shall also provide the following:

   1) A certified copy of the employee's payroll records shall be made available for inspection or furnished to such employee or his or her authorized representative on request.

   2) A certified copy of all payroll records described herein shall be made available for inspection or furnished upon request of the Department of Industrial Relations ("DIR").

c. The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement ("DLSE") of the DIR or shall contain the same information as the forms provided by the DLSE.

d. Any copy of records made available for inspection and furnished upon request to the public shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor or any subcontractor shall not be marked or obliterated.

e. In the event of noncompliance with the requirements of this Section, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying any item or actions necessary to ensure compliance with this section. Should noncompliance still be evident after such ten (10) day period, the Contractor shall, as a penalty to the District, forfeit One Hundred Dollars ($100.00) for each Day, or portion thereof, for each worker until strict compliance is effectuated. Upon the request of the DIR, such penalties shall be withheld from contract payments.

ARTICLE 33. PREVAILING RATES OF WAGES

a. The Contractor is aware of the requirements of Labor Code Sections 1720 et seq. and 1770 et seq., as well as California Code of Regulations, Title 8, Section

16000 et seq. ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. Since this Project involves an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and since the total compensation is $1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Agreement from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov/dlsr/. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor's principal place of business and at the Project site. Contractor shall defend, indemnify and hold the District, its elected officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or allege failure to comply with the Prevailing Wage Laws.

b. The Contractor and each subcontractor shall forfeit as a penalty to the District not more than Two Hundred dollars ($200.00) for each Day, or portion thereof, for each worker paid less than the stipulated prevailing wage rate for any work done by him, or by any subcontract under him, in violation of the provisions of the Labor Code. The difference between such stipulated prevailing wage rate and the amount paid to each worker for each Day or portion thereof for which each worker was paid less than the stipulated prevailing wage rate shall be paid to each worker by the Contractor.

c. Contractor shall post, at appropriate conspicuous points on the Project site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

ARTICLE 34. EMPLOYMENT OF APPRENTICES

The Contractor's attention is directed to the provisions of Sections 1777.5, 1777.6, and 1777.7 of the Labor Code concerning employment of apprentices by the Contractor or any subcontractor. The Contractor shall obtain a certificate of apprenticeship before employing any apprentice pursuant to Section 1777.5, 1777.6, and 1777.7 of the Labor Code. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, the Administrator of Apprenticeships, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

ARTICLE 35. LABOR COMPLIANCE

This Project is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations. It shall be the Contractor's sole responsibility to

evaluate and include the cost of complying with all labor compliance requirements under this contract and applicable law in its bid.

Contractor shall post, at each job site, the notice required by Section 16451(d) of Title 8 of the California Code of Regulations. Template notices are available by emailing a request to CMU@dir.ca.gov or at the following location.

District Office of the Division of Labor Standards Enforcement
1515 Clay Street, Suite 801
Oakland, CA 94612

In accordance with Labor Code section 1771.4, the Contractor and each subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations on a weekly basis and in the format prescribed by the Department of Industrial Relations, which may include electronic submission. Contractor shall comply with all requirements and regulations from the Department of Industrial Relations relating to labor compliance monitoring and enforcement.

ARTICLE 36. CONTRACTOR AND SUBCONTRACTOR REGISTRATION

If the bids subject to the Notice Inviting Bids are due on or after March 1, 2015, then pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

ARTICLE 37. NONDISCRIMINATION/EQUAL EMPLOYMENT OPPORTUNITY/EMPLOYMENT ELIGIBILITY

Pursuant to Labor Code Section 1735 and other applicable provisions of law, the Contractor and its subcontractors shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap on this Work. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap.

Employment Eligibility; Contractor. By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time. Such requirements and restrictions include, but are not limited to, examination and retention of documentation confirming the identity and immigration status of each employee of the

Contractor. Contractor also verifies that it has not committed a violation of any such law within the five (5) years immediately preceding the date of execution of this Contract, and shall not violate any such law at any time during the term of the Contract. Contractor shall avoid any violation of any such law during the term of this Contract by participating in an electronic verification of work authorization program operated by the United States Department of Homeland Security, by participating in an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, or by some other legally acceptable method. Contractor shall maintain records of each such verification, and shall make them available to the District or its representatives for inspection and copy at any time during normal business hours. The District shall not be responsible for any costs or expenses related to Contractor's compliance with the requirements provided for or referred to herein.

Employment Eligibility; Subcontractors, Sub-subcontractors and Consultants. To the same extent and under the same conditions as Contractor, Contractor shall require all of its subcontractors, sub-subcontractors and consultants performing any part of the Work or of this Contract to make the same verifications and comply with all requirements and restrictions provided for herein.

Employment Eligibility; Failure to Comply. Each person executing this Contract on behalf of Contractor verifies that he or she is a duly authorized officer of Contractor, and understands that any of the following shall be grounds for the District to terminate the Contract for cause: (1) failure of Contractor or its subcontractors, sub-subcontractors or consultants to meet any of the requirements provided for herein; (2) any misrepresentation or material omission concerning compliance with such requirements; or (3) failure to immediately remove from the Work any person found not to be in compliance with such requirements.

ARTICLE 38. LABOR/EMPLOYMENT SAFETY

The Contractor shall maintain emergency first aid treatment for his employees which complies with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 et seq.), and California Code of Regulations, Title 8, Industrial Relations Division 1, Department of Industrial Relations, Chapter 4. Contractor certifies that it is aware of and has complied with the provisions of California Labor Code section 6401.7, which requires every employer to adopt a written injury and illness prevention program.

ARTICLE 39. INSURANCE

The Contractor shall obtain, and at all times during performance of the Work of Contract, maintain all of the insurance described in ARTICLE 40. Contractor shall not commence Work under this Contract until it has provided evidence satisfactory to the District that it has secured all insurance required hereunder. Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence

satisfactory to the District that the subcontractor has secured all insurance required under this section. Failure to provide and maintain all required insurance shall be grounds for the District to terminate this Contract for cause. Contractor shall furnish District with original certificates of insurance and endorsements effective coverage required by this Contract on forms satisfactory to the District. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms acceptable to the District. All certificates and endorsements must be received and approved by the District before Work commences.

a. Additional Insureds; Waiver of Subrogation; Primary and Non-Contributory. The District, its elected officials, officers, employees, agents and authorized volunteers shall be named as Additional Insureds on Contractor's All Risk policy and on Contractor's and its subcontractors' policies of Commercial General Liability and Automobile Liability insurance using, for Contractor's policy/ies of Commercial General Liability insurance, ISO CG forms 20 10 and 20 37 (or endorsements providing the exact same coverage, including completed operations), and, for subcontractors' policies of Commercial General Liability insurance, ISO CG form 20 38 (or endorsements providing the exact same coverage). Notwithstanding the minimum limits set forth in this Contract for any type of insurance coverage, all available insurance proceeds in excess of the specified minimum limits of coverage shall be available to the parties required to be named as Additional Insureds hereunder. Contractor and its insurance carriers shall provide a Waiver of Subrogation Endorsement in favor of those parties. Contractor shall provide Primary and Non-Contributory wording in favor of those parties.

b. Workers' Compensation Insurance. The Contractor shall provide workers' compensation insurance for all of the employees engaged in Work under this Contract, on or at the Site, and, in case of any sublet Work, the Contractor shall require the subcontractor similarly to provide workers' compensation insurance for all the latter's employees as prescribed by State law. Any class of employee or employees not covered by a subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in work under this Contract, on or at the Site, is not protected under the Workers' Compensation Statutes, the Contractor shall provide or shall cause a subcontractor to provide, adequate insurance coverage for the protection of such employees not otherwise protected. The Contractor is required to secure payment of compensation to his employees in accordance with the provisions of section 3700 of the Labor Code. The Contractor shall file with the District certificates of his insurance protecting workers. Company or companies providing insurance coverage shall be acceptable to the District, if in the form and coverage as set forth in the Contract Documents. Such coverage shall include a Waiver of Subrogation Endorsement in favor of the District.

c. Employer's Liability Insurance. Contractor shall provide Employer's Liability Insurance, including Occupational Disease, in the amount of at least one million dollars ($1,000,000.00) per person per accident. Contractor shall provide District with a certificate of Employer's Liability Insurance. Such insurance shall comply with the provisions of the Contract Documents. The policy shall be endorsed, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement and contain a Waiver of Subrogation in favor of the District.

d. Commercial General Liability Insurance. Contractor shall provide "occurrence" form Commercial General Liability insurance coverage at least as broad as the most current ISO CGL Form 00 01, including but not limited to, premises liability, contractual liability, products/completed operations, personal and advertising injury which may arise from or out of Contractor's operations, use, and management of the Site, or the performance of its obligations hereunder. The policy shall not contain any exclusion contrary to this Contract including but not limited to endorsements or provisions limiting coverage for (1) contractual liability (including but not limited to ISO CG 24 26 or 21 39); or (2) cross-liability for claims or suits against one insured against another. Policy limits shall not be less than one million dollars ($1,000,000.00) per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Defense costs shall be paid in addition to the limits.

i. Such policy shall comply with all the requirements of this Article. The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Contractor from liability in excess of such coverage, nor shall it limit Contractor's indemnification obligations to the District, and shall not preclude the District from taking such other actions available to the District under other provisions of the Contract Documents or law.

ii. All general liability policies provided pursuant to the provisions of this Article shall comply with the provisions of the Contract Documents.

iii. All general liability policies shall be written to apply to all bodily injury, including death, property damage, personal injury, owned and non-owned equipment, blanket contractual liability, completed operations liability, explosion, collapse, under-ground excavation, removal of lateral support, and other covered loss, however occasioned, occurring during the policy term, and shall specifically insure the performance by Contractor of that part of the indemnification contained in these General Conditions relating to liability for injury to or death of persons and damage to property.

iv. If the coverage contains one or more aggregate limits, a minimum of 50% of any such aggregate limit must remain available at all times; if over 50% of any aggregate limit has been paid or reserved, the District may require additional coverage to be purchased by Contractor to restore the required limits. Contractor may combine primary, umbrella, and as broad as possible excess liability coverage to achieve the total limits indicated above. Any umbrella or excess liability policy shall include the additional insured endorsement described in the Contract Documents.

v. All policies of general liability insurance shall permit and Contractor does hereby waive any right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss.

e. Automobile Liability Insurance. Contractor shall provide "occurrence" form Automobile Liability Insurance at least as broad as ISO CA 00 01 (Any Auto) in the amount of, at least, one million dollars ($1,000,000.00) per accident for bodily injury and property damage. Such insurance shall provide coverage with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by Contractor or for which Contractor is responsible, in a form and with insurance companies acceptable to the District. All policies of automobile insurance shall permit and Contractor does hereby waive any right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor shall provide an Automobile Additional Insured Endorsement to the District.

f. Builder's Risk/Installation Floater ["All Risk"]

i. It is the Contractor's responsibility to maintain or cause to be maintained Builder's Risk/Installation Floater ["All Risk"] extended coverage insurance on all work, material, equipment, appliances, tools, and structures that are or will become part of the Work and subject to All Risks in an amount to cover 100% of the replacement cost. The District accepts no responsibility for the Work until the Work is formally accepted by the District. The Contractor shall provide a certificate evidencing this coverage before commencing performance of the Work.

ii. The named insureds shall be Contractor, all Subcontractors of any tier (excluding those solely responsible for design work), suppliers, and District, its elected officials, officers, employees, agents and authorized volunteers, as their interests may appear. Contractor shall not be required to maintain property insurance for any portion of the Work following acceptance by District.

iii. Policy shall be provided for replacement value on an "all risk" basis. There shall be no coinsurance penalty provision in any such policy. Policy must include: (1) coverage for any ensuing loss from faulty workmanship, nonconforming work, omission or deficiency in design or specifications; (2) coverage against machinery accidents and operational testing; (3) coverage for removal of debris, and insuring the buildings, structures, machinery, equipment, materials, facilities, fixtures and all other properties constituting a part of the Project; (4) transit coverage, including ocean marine coverage (unless insured by the supplier), with sub-limits sufficient to insure the full replacement value of any key equipment item; and (5) coverage with sub-limits sufficient to insure the full replacement value of any property or equipment stored either on or off the Site. Such insurance shall be on a form acceptable to District to ensure adequacy and sublimit.

iv. In addition, the policy shall meet the following requirements:

1) Insurance policies shall be so conditioned as to cover the performance of any extra work performed under the Contract.

2) Coverage shall include all materials stored on site and in transit.

3) Coverage shall include Contractor's tools and equipment.

4) Insurance shall include boiler, machinery and material hoist coverage.

g. Contractor shall require all tiers of sub-contractors working under this Contract to provide the insurance required under this Article unless otherwise agreed to in writing by District. Contractor shall make certain that any and all subcontractors hired by Contractor are insured in accordance with this Contract. If any subcontractor's coverage does not comply with the foregoing provisions, Contractor shall indemnify and hold the District harmless from any damage, loss, cost, or expense, including attorneys' fees, incurred by the District as a result thereof.

ARTICLE 40. FORM AND PROOF OF CARRIAGE OF INSURANCE

a. Any insurance carrier providing insurance coverage required by the Contract Documents shall be authorized to do business in the State of California unless waived, in writing, by the District's General Manager. Carrier(s) shall have an A.M. Best rating of not less than an A:IIX. Insurance deductibles or self-insured retentions must be declared by the Contractor. At the election of the District, the Contractor shall either 1) reduce or eliminate such deductibles or self-insured retentions, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses. If umbrella or excess liability coverage is used to meet any required limit(s)

specified herein, the Contractor shall provide a "follow form" endorsement satisfactory to the District indicating that such coverage is subject to the same terms and conditions as the underlying liability policy.

b. Each insurance policy required by this Contract shall be endorsed to state that: (1) should any of the above described be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the District its directors, officials, officers, employees, agents and volunteers.

c. The Certificates(s) and policies of insurance shall contain or shall be endorsed to contain the covenant of the insurance carrier(s) that it shall provide no less than thirty (30) days written notice be given to the District prior to any material modification or cancellation of such insurance. In the event of a material modification or cancellation of coverage, the District may terminate the Contract or stop the Work in accordance with the Contract Documents, unless the District receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. Contractor shall not take possession, or use the Site, or commence operations under this Contract until the District has been furnished original Certificate(s) of Insurance and certified original copies of endorsements or policies of insurance including all endorsements and any and all other attachments as required in this section. The original endorsements for each policy and the Certificate of Insurance shall be signed by an individual authorized by the insurance carrier to do so on its behalf.

d. The Certificate(s) of Insurance, policies and endorsements shall so covenant and shall be construed as primary, and the District's insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.

e. The District reserves the right to adjust the monetary limits of insurance coverages during the term of this Contract including any extension thereof if in the District's reasonable judgment, the amount or type of insurance carried by the Contractor becomes inadequate.

f. Contractor shall report to the District, in addition to Contractor's insurer, any and all insurance claims submitted by the Contractor in connection with the Work under this Contract.

ARTICLE 41. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

a. **Time for Completion/Liquidated Damages.** Work shall be commenced within ten (10) days of the date stated in the District's Notice to Proceed and shall be completed by Contractor in the Contract Time. The District is under no obligation to consider early completion of the Project; and the Contract completion date shall not be amended by the District's receipt or acceptance of the Contractor's proposed earlier completion date. Furthermore, Contractor shall not, under any circumstances, receive additional compensation from the District (including but not limited to indirect, general, administrative or other forms of overhead costs) for the period between the time of earlier completion proposed by the Contractor and the Contract completion date. If The Work is not completed within the Contract Time, it is understood that the District will suffer damage. In accordance with Government Code section 53069.85, being impractical and infeasible to determine the amount of actual damage, it is agreed that Contractor shall pay to the District as fixed and liquidated damages, and not as a penalty, the sum stipulated in the Contract for each day of delay until The Work is fully completed. Contractor and its surety shall be liable for any liquidated damages. Any money due or to become due the Contractor may be retained to cover liquidated damages.

b. **Inclement Weather.** Contractor shall abide the Engineer's determination of what constitutes inclement weather. Time extensions for inclement weather shall only be granted when the Work stopped during inclement weather is on the critical path of the then-current Project schedule.

c. **Extension of Time.** Contractor shall not be charged liquidated damages because of any delays in completion of The Work due to unforeseeable causes beyond the control and without the fault or negligence of Contractor (or its subcontractors or suppliers). Contractor shall within five (5) Days of identifying any such delay notify the District in writing of causes of delay. The District shall ascertain the facts and extent of delay and grant extension of time for completing The Work when, in its judgment, the facts justify such an extension. Time extensions to the Project shall be requested by the Contractor as they occur and without delay. No delay claims shall be permitted unless the event or occurrence delays the completion of the Project beyond the Contract completion date.

d. **No Damages for Reasonable Delay.** The District's liability to Contractor for delays for which the District is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall the District be liable for any costs which are borne by the Contractor in the regular course of business, including, but not limited to, home office overhead and other ongoing costs. Damages caused by unreasonable District delay, including delays caused by items that are the responsibility of the District

pursuant to Government Code section 4215, shall be based on actual costs only, no proportions or formulas shall be used to calculate any delay damages.

ARTICLE 42. COST BREAKDOWN AND PERIODIC ESTIMATES

Contractor shall furnish on forms Approved by the District:

a. Within ten (10) Days of award of the Contract a detailed Schedule of Values giving a complete breakdown of the Contract price. The Schedule of Values shall be adjusted as directed by the District;

b. A monthly itemized estimate of Work done for the purpose of making progress payments. In order for the District to consider and evaluate each progress payment application, the Contractor shall submit a detailed measurement of Work performed and a progress estimate of the value thereof before the tenth (10th) Day of the following month.

c. Contractor shall submit, with each of its payment requests, an adjusted list of actual quantities, verified by the Engineer, for unit price items listed, if any, in the Bid Form.

d. Following the District's Acceptance of the Work, the Contractor shall submit to the District a written statement of the final quantities of unit price items for inclusion in the final payment request.

e. The District shall have the right to adjust any estimate of quantity and to subsequently correct any error made in any estimate for payment.

Contractor shall certify under penalty of perjury, that all cost breakdowns and periodic estimates accurately reflect the Work on the Project.

ARTICLE 43. MOBILIZATION

a. When a bid item is included in the Bid Form for mobilization, the costs of Work in advance of construction operations and not directly attributable to any specific bid item will be included in the progress estimate ("Initial Mobilization"). When no bid item is provided for "Initial Mobilization," payment for such costs will be deemed to be included in the other items of The Work.

b. Payment for Initial Mobilization shall be based on the lump sum provided in the Bid Form, which shall constitute full compensation for all such Work. No payment for Initial Mobilization will be made until all of the listed items have been completed to the satisfaction of the Engineer. The scope of the Work included under Initial Mobilization shall include, but shall not be limited to, the following principal items:

1) Obtaining and paying for all bonds, insurance, and permits.

2) Moving on to the Project site of all Contractor's plant and equipment required for first month's operations.

3) Developing and installing a construction water supply.

4) Providing on-site sanitary facilities and potable water facilities as specified per Cal-OSHA and these Contract Documents.

5) Furnishing, installing, and maintaining all storage buildings or sheds required for temporary storage of products, equipment, or materials, and for all security.

6) Arranging for and erection of Contractor's work and storage yard.

7) Posting all OSHA required notices and establishment of safety programs per Cal-OSHA.

8) Full-time presence of Contractor's superintendent at the job site as required herein.

9) Submittal of Construction Schedule as required by the Contract Documents.

ARTICLE 44. PAYMENTS

a. The District shall make monthly progress payments following receipt of undisputed and properly submitted payment requests. Unless the District has made findings pursuant to Public Contract Code section 7201 (that the work included in this Contract is substantially complex, and therefore a retention of 10% shall be withheld from each progress payment as provided by the Contract Documents), Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of Work performed up to the last day of the previous month, less the aggregate of previous payments. District will, within forty-five (45) days after receipt of an undisputed and properly submitted application for payment, pay the Contractor the amount so approved.

b. The Contractor shall, after the full completion of The Work, submit a final payment application. All prior progress estimates shall be subject to correction in the final estimate and payment.

c. Unless otherwise required by law or unless the District has made findings pursuant to Public Contract Code section 7201 (that the work included in this Contract is substantially complex, and therefore a retention of 10% shall be withheld from each progress payment as provided by the Contract Documents), the final payment of five percent (5%) of the value of the Work, if unencumbered,

shall be paid no later than sixty (60) Days after the date of recordation of the Notice of Completion.

d. Acceptance by Contractor of the final payment shall constitute a waiver of all claims against the District arising from this Contract.

e. Payments to the Contractor shall not be construed to be an acceptance of any defective work or improper materials, or to relieve the Contractor of its obligations under the Contract Documents.

f. The Contractor shall submit with each payment request the Contractor's conditional waiver of lien for the entire amount covered by such payment request, as well as a valid unconditional waiver of lien from the Contractor and all subcontractors and materialmen for all work and materials included in any prior invoices. Waivers of lien shall be in the forms prescribed by California Civil Code Section 8132, 8132, 8136 and 8138. Prior to final payment by the District, the Contractor shall submit a final conditional waiver of lien for the Contractor's work, together with unconditional releases of lien from any subcontractor or materialmen.

ARTICLE 45. PAYMENTS WITHHELD AND BACKCHARGES

In addition to amounts which the District may retain under other provisions of the Contract Documents the District may withhold payments due to Contractor as the District may consider to be necessary to cover:

a. Stop Notice Claims.

b. Defective work not remedied.

c. Failure of Contractor to make proper payments to its subcontractors or suppliers.

d. Completion of the Contract if there exists a reasonable doubt that the work can be completed for balance then unpaid.

e. Damage to another contractor or third party.

f. Amounts which may be due the District for claims against Contractor.

g. Failure of Contractor to keep the record ("as-built") drawings up to date.

h. Failure to provide updates on the construction schedule.

i. Site cleanup.

j. Failure of the Contractor to comply with requirements of the Contract Documents.

k. Liquated damages.

l. Legally permitted penalties.

Upon completion of the Contract, the District will reduce the final Contract amount to reflect costs charged to the Contractor, back charges or payments withheld pursuant to the Contract Documents.

ARTICLE 46. CHANGES AND EXTRA WORK

a. **Change Order Work.**

1) The District, without invalidating the Contract, may order changes in the Work consisting of additions, deletions or other revisions, the Contract Price and Contract Time being adjusted accordingly. All such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including any adjustment in the Contract amount or the Contract time, and the full and final settlement of all costs (direct, indirect and overhead) related to the Work authorized by the Change Order.

2) Contractor shall promptly execute changes in the Work as directed in writing by the District even when the parties have not reached agreement on whether the change increases the scope of Work or affects the Contract Price or Contract Time. All claims for additional compensation to the Contractor shall be presented in writing. No claim will be considered after the work in question has been done unless a written contract change order has been issued or a timely written notice of claim has been made by Contractor. Contractor shall not be entitled to claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease or omission of any item or portion of Work to be done. Whenever any change is made as provided for herein, such change shall be considered and treated as though originally included in the Contract, and shall be subject to all terms, conditions and provisions of the original Contract.

3) Owner Initiated Change. The Contractor must submit a complete cost proposal, including any change in the Contract time, within seven (7) Days after receipt of a scope of a proposed change order initiated by the District, unless the District requests that proposals be submitted in less than seven (7) Days.

4) Contractor Initiated Change. The Contractor must give written notice of a proposed change order required for compliance with the Contract

Documents within seven (7) Days of discovery of the facts giving rise to the proposed change order.

5) Whenever possible, any changes to the Contract amount shall be in a lump sum mutually agreed to by the Contractor and the District.

6) Price quotations from the Contractor shall be accompanied by sufficiently detailed supporting documentation to permit verification by the District, including but not limited to estimates and quotations from subcontractors or material suppliers, as District may reasonably request.

7) If the Contractor fails to submit a complete cost proposal within the seven (7) Day period (or as requested), the District has the right to order the Contractor in writing to commence the work immediately on a force account basis and/or issue a lump sum change to the Contract Price and/ or Contract Time in accordance with the District's estimate. If the change is issued based on the District estimate, the Contractor will waive its right to dispute the action unless within fifteen (15) Days following completion of the added/deleted work, the Contractor presents written proof that the District's estimate was in error.

8) Estimates for lump sum quotations and accounting for cost-plus-percentage work shall be limited to direct expenditures necessitated specifically by the subject extra work, and shall be segregated as follows:

   (a) Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra work cost will not be permitted unless the contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

   (b) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery. Materials cost shall be based upon supplier or manufacturer's invoice. If invoices or other satisfactory evidence of cost are not furnished within fifteen (15) Days of delivery, then the Engineer shall determine the materials cost, at its sole discretion.

(c) Tool and Equipment Use. Costs for the use of small tools, tools which have a replacement value of $1,000 or less shall be considered included in the markups described below. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.

(d) Overhead, Profit and Other Charges. The mark-up for overhead (including supervision) and profit on work added to the Contract shall be according to the following:

i. "Net Cost" is defined as consisting of costs of labor, materials and tools and equipment only excluding overhead and profit. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up. Contractor shall provide District with documentation of the costs, including but not limited to payroll records, invoices and such other information as District may reasonably request.

ii. For Work performed by the Contractor's forces the added cost for overhead and profit shall not exceed fifteen (15%) percent of the Net Cost of the Work.

iii. For Work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen (15%) percent of the subcontractor's Net Cost of the Work to which the Contractor may add five (5%) percent of the subcontractor's Net Cost.

iv. For Work performed by a sub-subcontractor the added cost for overhead and profit shall not exceed fifteen (15 %) percent of the sub-subcontractor's Net Cost for Work to which the subcontractor and general contractor may each add an additional five (5%) percent of the Net Cost of the lower tier subcontractor.

iv. No additional markup will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by District exceed twenty-five (25%) percent of the Net Cost as defined herein, of the party that performs the Work.

9) All of the following costs are included in the markups for overhead and profit described above, and Contractor shall not receive any additional compensation for: Submittals, drawings: field drawings, Shop Drawings,

including submissions of drawings; field inspection; General Superintendence; General administration and preparation of cost proposals, schedule analysis, Change Orders, and other supporting documentation; computer services; reproduction services; Salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries; Janitorial services; Small tools, incidentals and consumables; Temporary on-Site facilities (Offices, Telephones, Internet access, Plumbing, Electrical Power, lighting; Platforms, Fencing, Water), Jobsite and Home office overhead or other expenses; vehicles and fuel used for work otherwise included in the Contract Documents; Surveying; Estimating; Protection of Work; Handling and disposal fees; Final cleanup; Other incidental Work; Related warranties; insurance and bond premiums.

10) For added or deducted Work by subcontractors, the Contractor shall furnish to the District the subcontractor's signed detailed record of the cost of labor, material and equipment, including the subcontractor markup for overhead and profit. The same requirement shall apply to sub-subcontractors.

11) For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the District a detailed record of the cost to the Contractor, signed by such vendor or supplier.

12) Any change in The Work involving both additions and deletions shall indicate a net total cost, including subcontracts and materials. Allowance for overhead and profit, as specified herein, shall be applied if the net total cost is an increase in the Contract Price; overhead and profit allowances shall not be applied if the net total cost is a deduction to the Contract Price. The estimated cost of deductions shall be based on labor and material prices on the date the Contract was executed.

13) Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the change order for work. No claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. The Contractor may not change or modify the District's change order form in an attempt to reserve additional rights.

14) If the District disagrees with the proposal submitted by Contractor, it will notify the Contractor and the District will provide its opinion of the appropriate price and/or time extension. If the Contractor agrees with the District, a change order will be issued by the District. If no agreement can be reached, the District shall have the right to issue a unilateral change order setting forth its determination of the reasonable additions or savings

in costs and time attributable to the extra or deleted work. Such determination shall become final and binding if the Contractor fails to submit a claim in writing to the District within fifteen (15) Days of the issuance of the unilateral change order, disputing the terms of the unilateral change order, and providing such supporting documentation for its position as the District may require.

15) No dispute, disagreement or failure of the parties to reach agreement on the terms of the change order shall relieve the Contractor from the obligation to proceed with performance of the work, including extra work, promptly and expeditiously.

16) Any alterations, extensions of time, extra work or any other changes may be made without securing consent of the Contractor's surety or sureties.

ARTICLE 47. OCCUPANCY

The District reserves the right to occupy or utilize any portion of The Work at any time before completion, and such occupancy or use shall not constitute Acceptance of any part of Work covered by this Contract. This use shall not relieve the Contractor of its responsibilities under the Contract.

ARTICLE 48. INDEMNIFICATION

To the fullest extent allowed by law, Contractor shall defend (with Counsel of District's choosing), indemnify and hold the District, its elected officials, officers, employees, agents and authorized volunteers free and harmless from any and all claims, demands, causes of action, costs, expenses, liabilities, losses, damages or injuries, at law or in equity, regardless of whether the allegations are false, fraudulent, or groundless, to property or persons, including wrongful death, to the extent arising out of or incident to any acts, omissions or willful misconduct of Contractor, its officials, officers, employees, agents, consultants and contractors arising out of or in connection with the performance of the Work or this Contract, including claims made by subcontractors for nonpayment, including without limitation the payment of all consequential damages and attorneys' fees and other related costs and expenses. Contractor shall defend, at Contractor's own cost, expense and risk, with Counsel of District's choosing, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against District, its elected officials, officers, employees, agents and authorized volunteers. To the extent of its liability, Contractor shall pay and satisfy any judgment, award or decree that may be rendered against District, its elected officials, officers, employees, agents and authorized volunteers in any such suit, action or other legal proceeding. Contractor shall reimburse District, its elected officials, officers, employees, agents and authorized volunteers for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein

provided. The only limitations on this provision shall be those imposed by Civil Code Section 2782.

ARTICLE 49. RECORD ("AS BUILT") DRAWINGS

a. Contractor shall prepare and maintain a complete set of record drawings (herein referred to as "as-builts") and shall require each trade to prepare its own as-builts. Contractor shall mark the as-builts to show the actual installation where the installation varies from the Work as originally shown. Contractor shall mark whichever drawings are most capable of showing conditions fully and where shop drawings are used, Contractor must record a cross-reference at the corresponding location on the contract drawings. Contractor shall give particular attention to concealed elements that would be difficult to measure and record at a later date. Contractor shall use colors to distinguish variations in separate categories of The Work.

b. Contractor shall note related change order numbers where applicable. Contractor shall organize as-builts into manageable sets, bound with durable paper cover sheets and shall print suitable title, dates and other identification on the cover of each set. The suitability of the as-builts will be determined by the Engineer.

ARTICLE 50. RESOLUTION OF CONSTRUCTION CLAIMS

a. Contractor shall timely comply with all notices and requests for changes to the Contract Time or Contract Price, including but not limited to all requirements of Article 47, Changes and Extra Work, as a prerequisite to filing any claim governed by this Article. The failure to timely submit a notice of delay or notice of change, or to timely request a change to the Contract Price or Contract Time, or to timely provide any other notice or request required by this agreement shall constitute a waiver of the right to procedures of this Article.

b. Effective January 1, 1991, Section 20104 et seq., of the California Public Contract Code prescribes a process utilizing informal conferences, non-binding judicial supervised mediation, and judicial arbitration to resolve disputes on construction claims of $375,000 or less.

c. Effective January 1, 2017, Section 9204 of the Public Contract Code prescribes a process for negotiation and mediation to resolve disputes on construction claims. The intent of this Article is to implement Sections 20104 et seq. and Section 9204 of the California Public Contract Code. This Article shall be construed to be consistent with said statutes.

d. For purposes of this Article, "Claim" means a separate demand by the Contractor, after a change order duly requested in accordance with Article 47 "Changes and Extra Work" has been denied, for (A) a time extension, (B)

payment of money or damages arising from work done by or on behalf of the Contractor pursuant to the Contract for a public work and payment of which is not otherwise entitled to, or (C) an amount the payment of which is disputed by the District.

e. **Claims governed by this Article may not be filed unless and until the Contractor completes all procedures for giving notice of delay or change and for the requesting of a time extension or change order, including but not necessarily limited to the procedures contained in Article 47 "Changes and Extra Work," and Contractor's request for a change has been denied in whole or in part. Claims governed by this Article must be filed no later than the date of final payment.**

f. The claim shall be submitted in writing to the District and shall include on its first page the following in 16 point capital font: "THIS IS A CLAIM." Furthermore, the claim shall include the documents necessary to substantiate the claim. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims, including all requirements pertaining to compensation or payment for extra work, disputed work, and/or changed conditions. Failure to follow such contractual requirements shall bar any claims or subsequent lawsuits for compensation or payment thereon.

g. **Supporting Documentation**: The Contractor shall submit all claims in the following format:

1) Summary of claim merit and price, reference Contract Document provisions pursuant to which the claim is made

2) List of documents relating to claim:

i. Specifications

ii. Drawings

iii. Clarifications (Requests for Information)

iv. Schedules

v. Other

3) Chronology of events and correspondence

4) Analysis of claim merit

5) Analysis of claim cost

6) Time impact analysis in CPM format

h. **District's Response**. Upon receipt of a claim pursuant to this Article, District shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Any payment due on an undisputed portion of the claim will be processed and made within 60 days after the public entity issues its written statement.

1) If the District needs approval from the District Board to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the claim, and the District Board does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the District shall have up to three days following the next duly publicly noticed meeting of the District Board after the 45-day period, or extension, expires to provide the Contractor a written statement identifying the disputed portion and the undisputed portion.

2) Within 30 days of receipt of a claim, the District may request in writing additional documentation supporting the claim or relating to defenses or claims the District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of District and the Contractor. The District's written response to the claim, as further documented, shall be submitted to the Contractor within 30 days (if the claim is less than $15,000, within 15 days) after receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

i. **Meet and Confer**. If the Contractor disputes the District's written response, or the District fails to respond within the time prescribed, the Contractor may so notify the District, in writing, either within 15 days of receipt of the District's response or within 15 days of the District's failure to respond within the time prescribed, respectively, and demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute.

j. **Mediation**. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and

made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the Contractor sharing the associated costs equally. The public entity and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing, unless the parties agree to select a mediator at a later time.

1) If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator.

2) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

3) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

4) The mediation shall be held no earlier than the date the Contractor completes the Work or the date that the Contractor last performs Work, whichever is earlier. All unresolved claims shall be considered jointly in a single mediation, unless a new unrelated claim arises after mediation is completed.

k. If following the mediation, the claim or any portion remains in dispute, the Contractor must file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code prior to initiating litigation. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the Contractor submits his or her written claim pursuant to subdivision (a) until the time the claim is denied, including any period of time utilized by the meet and confer conference.

l. The following procedures are established for all civil actions filed to resolve claims of $375,000 or less:

1) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to non-binding mediation unless waived by mutual stipulation of both parties or unless

mediation was held prior to commencement of the action in accordance with Public Contract Code section 9204 and the terms of this Agreement. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court.

2) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1114.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

i. In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.

m. **Government Code Claims:** In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, construction claims and/or changed conditions, the Contractor must comply with the claim procedures set forth in Government Code Sections 900, et seq. prior to filing any lawsuit against the District. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, construction claims, and/or changed conditions have been followed by Contractor. If no such Government Code claim is submitted, or if the prerequisite contractual requirements are not satisfied, no action against the District may be filed. **A Government Code claim must be filed no earlier than the date the work is completed or the date the Contractor last performs work on the Project, whichever occurs first. A Government Code claim shall be inclusive of all unresolved claims unless a new unrelated claim arises after the Government Code claim is submitted.**

n. The District's failure to respond to a claim from the Contractor within the time periods described in this Article or to otherwise meet the time requirements of this Article shall result in the claim being deemed rejected in its entirety.

ARTICLE 51. DISTRICT'S RIGHT TO TERMINATE CONTRACT

a. **Termination for Cause**: The District may, without prejudice to any other right or remedy, serve written notice upon Contractor of its intention to terminate this Contract if the Contractor: (i) refuses or fails to prosecute The Work or any part thereof with such diligence as will ensure its completion within the time required; (ii) fails to complete The Work within the required time; (iii) should file a bankruptcy petition or be adjudged a bankrupt; (iv) should make a general assignment for the benefit of its creditors; (v) should have a receiver appointed; (vi) should persistently or repeatedly refuse or fail to supply enough properly skilled workers or proper materials to complete the work; (vii) should fail to make prompt payment to subcontractors or for material or labor; (viii) persistently disregard Applicable Laws, ordinances, other requirements or instructions of the District; or (ix) should violate any of the provisions of the Contract Documents.

The notice of default and intent to terminate shall contain the reasons for termination. Unless within ten (10) Days after the service of such notice, Contractor resolves the circumstances giving rise to the notice of default to the District's satisfaction, or makes arrangements acceptable to the District for the required corrective action, this Contract shall terminate. In such case, Contractor shall not be entitled to receive any further payment until the Project has been finished. The District may take over and complete The Work by any method it may deem appropriate. Contractor and its surety shall be liable to the District for any excess costs or other damages incurred by the District to complete the Project. If the District takes over The Work, the District may, without liability for so doing, take possession of and utilize in completing The Work such materials, appliances, plant, and other property belonging to the Contractor as may be on the Project site.

b. **Termination For Convenience:** In addition to its right to terminate this Contract for default, the District may terminate the Contract, in whole or in part, at any time upon ten (10) Days written notice to Contractor. The Notice of Termination shall specify that the termination is for the convenience of the District, the extent of termination and the effective date of such termination.

After receipt of Notice of Termination, and except as directed by the District, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this Termination for Convenience clause, immediately proceed with the following obligations:

1) Stop Work as specified in the Notice.

2) Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality called for under the Contract Documents.

3) Leave the Site and any other property upon which the Contractor was working and upon which the facility (or facilities) forming the basis of the Contract Documents is situated in a safe and sanitary manner such that it does not pose any threat to the public health or safety.

4) Terminate all subcontracts and purchase orders to the extent that they relate to the portions of The Work terminated.

5) Place no further subcontracts or orders, except as necessary to complete the remaining portion of The Work.

6) Submit to the District, within ten (10) Days from the effective date of the Notice of Termination, all of the documentation called for by the Contract Documents to substantiate all costs incurred by the Contractor for labor, materials and equipment through the Effective Date of the Notice of Termination. Any documentation substantiating costs incurred by the Contractor solely as a result of the District's exercise of its right to terminate this Contract pursuant to this clause, which costs the Contractor is authorized under the Contract Documents to incur, shall: (i) be submitted to and received by the District no later than thirty (30) Days after the Effective Date of the Notice of Termination; (ii) describe the costs incurred with particularity; and (iii) be conspicuously identified as "Termination Costs Occasioned by the District's Termination for Convenience."

7) District's total liability to Contractor by reason of the termination shall be limited to the total (without duplication of any items) of:

   i. The reasonable cost to the Contractor for all Work performed prior to the effective date of the termination, determined in accordance with the force account provisions of ARTICLE 46, including the Work done to secure the Project for termination. Reasonable cost may not exceed the applicable percentage completion values derived from the progress schedule and the Cost Breakdown. Deductions shall be made for cost of materials to be retained by the Contractor, cost of Work defectively performed, amounts realized by sale of materials, and for other appropriate credits or offsets against cost of Work as allowed by the Contract Documents. Reasonable cost will include reasonable allowance for Project overhead and general administrative overhead, not to exceed five percent (5%) of the cost. Contractor shall not be entitled to reimbursement under this section for Work for which Contractor has already received,

or is eligible to receive, compensation under the terms of the Contract.

ii. When, in the District's opinion, the cost of any item of Work is excessively high due to costs incurred to remedy or replace defective or rejected Work, reasonable cost to be allowed will be the estimated reasonable cost of performing the Work in compliance with requirements of the Contract Documents and excessive actual cost shall be disallowed.

iii. A reasonable allowance for profit on cost of Work performed as determined in accordance with ARTICLE 46 provided that the Contractor establishes to the District's satisfaction that the Contractor would have made a profit had the Project been completed, and provided further that the profit allowed shall not exceed five percent (5%) percent of the cost. Contractor shall not be entitled to an allowance for profit on any work for which Contractor has received, or is eligible to receive, compensation under the terms of the Contract.

iv. Reasonable costs to the Contractor of handling material returned to vendors, delivered to the District or otherwise disposed of as directed by the District.

v. A reasonable allowance for the Contractor's internal administrative costs in preparing termination claim.

vi. Reasonable demobilization costs, and reasonable payments made to Subcontractors or suppliers on account of termination.

8) In no event shall the District be liable for unreasonable costs incurred by the Contractor or subcontractors after receipt of a notice of termination. Such non-recoverable costs include, but are not limited to, the cost of or anticipated profits on Work not performed as of the date of termination, post-termination employee salaries, unreasonable post-termination administrative expenses, post-termination overhead or unabsorbed overhead, surety costs of any type, costs of preparing and submitting the Contractor's termination claim, attorney fees of any type, and all other costs relating to prosecution of a claim or lawsuit.

9) The District shall have no obligation to pay the Contractor under this ARTICLE 51b (Termination for Convenience) unless and until the Contractor provides the District with updated and acceptable as-builts and Record Documents for Work completed prior to termination.

10) In arriving at the amount due the Contractor under this clause there shall be deducted in whole or in the appropriate part(s) if the termination is partial:

11) All unliquidated advances or other payments on account previously made to the Contractor, including without limitation all payments which are applicable to the terminated portion of the Contract Documents,

12) Any claim the District may have against the Contractor in connection with the Work, and

13) The agreed price for, or proceeds of sale of, any materials, supplies, or other things kept by the Contractor and not otherwise recovered by or credited to the District.

14) These provisions are in addition to and not in limitation of any other rights or remedies available to the District.

c. **Savings Clause**. If District terminates Contractor for cause, and if it is later determined that the termination was wrongful, such default termination shall automatically be converted to and treated as a termination for convenience. In such event, Contractor shall be entitled to receive only the amounts payable under this section, and Contractor specifically waives any claim for any other amounts or damages, including, but not limited to, any claim for consequential damages or lost profits.

d. **Exception.** Notwithstanding any other provision of this Article, when immediate action is necessary to protect life and safety or to reduce significant exposure or liability, the District may immediately order Contractor to cease Work until such safety or liability issues are addressed to the satisfaction of the District or the Contract is terminated.

ARTICLE 52. WARRANTY AND GUARANTEE

a. Contractor warrants that all materials and equipment furnished under this Contract shall be new unless otherwise specified in the Contract Documents; and that all Work conforms to the Contract Document requirements and is free of any defect whether performed by the Contractor or any subcontractor or supplier.

b. Unless otherwise stated, all warranty periods shall begin upon the filing of the Notice of Completion. Unless otherwise stated, the warranty period shall be for one year.

c. The Contractor shall remedy at its expense any damage to District-owned or controlled real or personal property.

d. Contractor shall furnish the District with all warranty and guarantee documents prior to final Acceptance of the Project by the District.

e. The District shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. The Contractor shall within ten (10) Days after being notified commence and perform with due diligence all necessary Work to complete or correct the Work at issue. If the Contractor fails to promptly remedy any defect, or damage; the District shall have the right to replace, repair, or otherwise remedy the defect, or damage at the Contractor's expense.

f. In the event of any emergency constituting an immediate hazard to health, safety, property, or licensees, when caused by Work of the Contractor not in accordance with the Contract requirements, the District may undertake at Contractor's expense, and without prior notice, all actions necessary to correct such condition.

g. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for Work performed and Materials furnished under this Contract, the Contractor shall:

    1) Obtain for District all warranties that would be given in normal commercial practice or that are required in the Contract Documents;

    2) Require all warranties to be executed, in writing, for the benefit of the District; and

    3) Enforce all warranties for the benefit of the District, unless otherwise directed in writing by the District.

This Article shall not limit the District's rights under this Contract or with respect to latent defects, gross mistakes, or fraud. The District specifically reserves all rights related to defective work, including but not limited to the defect claims pursuant to California Code of Civil Procedure Section 337.15.

ARTICLE 53. DOCUMENT RETENTION & EXAMINATION

a. In accordance with Government Code Section 8546.7, records of both the District and the Contractor shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment.

b. Contractor shall make available to the District any of the Contractor's other documents related to the Project immediately upon request of the District.

c. In addition to the State Auditor rights above, the District shall have the right to examine and audit all books, estimates, records, contracts, documents, bid

documents, subcontracts, and other data of the Contractor (including electronic records, computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the District, for a period of four (4) years after final payment.

ARTICLE 54. SOILS INVESTIGATIONS

When a soils investigation report for the Project site is available, such report shall not be a part of the Contract Documents. Any information obtained from such report as to subsurface soil condition, or to elevations of existing grades or elevations of underlying rock, is approximate only and is not guaranteed. Contractor acknowledges that any soils investigation report (including any borings) was prepared for purposes of design only and Contractor is required to examine the site before submitting its bid and must make whatever tests it deems appropriate to determine the underground condition of the soil.

ARTICLE 55. SEPARATE CONTRACTS

a. The District reserves the right to let other contracts in connection with this Work or on the Project site. Contractor shall cooperate with and permit other contractors reasonable access and storage of their materials and execution of their work and shall properly connect and coordinate its Work with theirs.

b. To ensure proper execution of its subsequent Work, Contractor shall immediately inspect work already in place and shall at once report to the Engineer any problems with the work in place or discrepancies with the Contract Documents.

c. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by the District in prosecution of the Project to the end that Contractor may perform this Contract in the light of such other contracts, if any. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy at site of the Project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project. If simultaneous execution of any contract for the Project is likely to cause interference with performance of some other contract or contracts, the Engineer shall decide which Contractor shall cease Work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously. The District shall not be responsible for any damages suffered or for extra costs incurred by Contractor resulting directly or indirectly from award, performance, or attempted performance of any other contract or contracts on the Project site.

ARTICLE 56. NOTICE AND SERVICE THEREOF

All notices shall be in writing and either served by personal delivery or mailed to the other party as designated in the Bid Forms. Written notice to the Contractor shall be addressed to Contractor's principal place of business unless Contractor designates another address in writing for service of notice. Notice to District shall be addressed to the District as designated in the Notice Inviting Bids unless District designates another address in writing for service of notice. Notice shall be effective upon receipt or five (5) Days after being sent by first class mail, whichever is earlier. Notice given by facsimile shall not be effective unless acknowledged in writing by the receiving party.

ARTICLE 57. NOTICE OF THIRD PARTY CLAIMS

Pursuant to Public Contract Code Section 9201, the District shall provide Contractor with timely notification of the receipt of any third-party claim relating to the Contract.

ARTICLE 58. STATE LICENSE BOARD NOTICE

Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

ARTICLE 59. INTEGRATION

a. This Contract, together with its incorporated documents, contains the entire, integrated agreement of the parties hereto, and supersedes any and all other prior or contemporaneous negotiations, understandings and oral or written agreements between the parties hereto. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void.

b. Any modification of this Contract shall be effective in in writing signed by all parties hereto. No oral order, objection, direction, claim or notice by any party or person shall affect or modify any of the terms or obligations contained in the Contract Documents.

ARTICLE 60. ASSIGNMENT

Contractor shall not assign, transfer, convey, sublet, or otherwise dispose of this Contract or any part thereof including any claims, without prior written consent of the District. Any assignment without the written consent of the District shall be void. Any

assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or Material supplied for performance of Work called for under the Contract Documents in favor of all persons, firms, or corporations rendering such services or supplying such Materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure or the Government Code.

ARTICLE 61. CHANGE IN NAME AND NATURE OF CONTRACTOR'S LEGAL ENTITY

Should a change be contemplated in the name or nature of the Contractor's legal entity, the Contractor shall first notify the District in order that proper steps may be taken to have the change reflected on the Contract and all related documents. No change of Contractor's name or nature will affect District's rights under the Contract, including but not limited to the bonds.

ARTICLE 62. ASSIGNMENT OF ANTITRUST ACTIONS

Pursuant to Section 7103.5 of the Public Contract Code, in entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, Contractor or subcontractor offers and agrees to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (chapter 2 (commencing with Section 16700) of part 2 of division 7 of the Business and Professions Code), arising from the purchase of goods, services, or materials pursuant to this Contract or any subcontract. This assignment shall be made and become effective at the time the District makes final payment to the Contractor, without further acknowledgment by the parties.

ARTICLE 63. PROHIBITED INTERESTS

No District official or representative who is authorized in such capacity and on behalf of the District to negotiate, supervise, make, accept, or approve, or to take part in negotiating, supervising, making, accepting or approving any engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the project, shall be or become directly or indirectly interested financially in the Contract.

ARTICLE 64. LAWS AND REGULATIONS

a. Contractor shall give all notices and comply with all federal, state and local laws, ordinances, rules and regulations bearing on conduct of work as indicated and specified by their terms. References to specific laws, rules or regulations in the Contract Documents are for reference purposes only and shall not limit or affect the applicability of provisions not specifically mentioned. If Contractor observes that drawings and specifications are at variance therewith, he shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as

provided for in this Contract for changes in work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Engineer, he shall bear all costs arising therefrom.

b. Contractor shall be responsible for familiarity with the Americans with Disabilities Act ("ADA") (42 U.S.C. § 12101 et seq.). The Work will be performed in compliance with ADA laws, rules and regulations. Contractor shall comply with the Historic Building code, including but not limited to, as it relates to the ADA, whenever applicable.

c. Contractor acknowledges and understands that, pursuant to Public Contract Code section 20676, sellers of "mined material" must be on an approved list of sellers published pursuant to Public Resources Code section 2717(b) in order to supply mined material for this Contract.

ARTICLE 65. PATENT FEES OR ROYALTIES.

The Contractor shall include in its bid amount the patent fees or royalties on any patented article or process furnished or used in the Work. Contractor shall assume all liability and responsibility arising from the use of any patented, or allegedly patented, materials, equipment, devices or processes used in or incorporated with The Work, and shall defend, indemnify and hold harmless the District, its officials, officers, agents, employees and representatives from and against any and all liabilities, demands, claims, damages, losses, costs and expenses, of whatsoever kind or nature, arising from such use.

ARTICLE 66. OWNERSHIP OF DRAWING

All Contract Documents furnished by the District are District property. They are not to be used by Contractor or any subcontractor on other work nor shall Contractor claim any right to such documents. With exception of one complete set of Contract Documents, all documents shall be returned to the District on request at completion of the Work.

ARTICLE 67. NOTICE OF TAXABLE POSSESSORY INTEREST

In accordance with Revenue and Taxation Code Section 107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which Contractor will be responsible.

END OF GENERAL CONDITIONS

SPECIAL CONDITIONS

SP – 1 DIFFERING SITE CONDITIONS

In the event that site conditions are materially different than shown on the plans or observed during the mandatory site visit, the Contractor shall promptly notify the Engineer in writing. The Engineer shall investigate the conditions, and if found that such conditions do materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work under this Contract, the Engineer will recommend to the District that an equitable adjustment be made by modifying the Contract by Change Order to account for differing site conditions.

No Claim of the Contractor under this clause or any other shall be allowed unless the Contractor has given notice as indicated above..

No Claim of the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under this Contract.

SP – 2 USE OF STANDARDS

The District's Standard Technical Specifications and Standard Details (most recent edition) are considered a part of the Contract Documents and are the primary reference for technical specifications for the construction of District projects. Any item of work not specified in the following Technical Specifications sections or not shown in the Bid Drawings shall be subject to the District's Standard Technical Specifications and Standard Details .

SP – 3 DESCRIPTION OF BID ITEMS

The Bid Items listed in Section 00400 Bid Form are described in further detail in Section 01200 – Measurement and Payment. The descriptions provided are intended as a guide for measurement and payment and may not include all items or work necessary to complete the Project. Any items not described, but necessary to complete the Project as specified within the Contract Documents shall be considered included in the appropriate Bid Item.

SP – 4 DAMAGE TO PAVEMENT AND CONCRETE

The Contractor shall provide all necessary protection to existing pavement and concrete so as to avoid scraping, gouging, imprinting, cracking edges or otherwise causing damage during the entire Project. The District shall direct the Contractor to repair any damage as deemed necessary by the District. The Contractor shall repair said damage using methods required by the District or the parties may agree to an alternative method in advance of said repairs. All costs of repairs to existing pavement and concrete due to damage caused by the Contractor shall be solely the responsibility of the Contractor.

END OF SPECIAL CONDITIONS

HIGHLAND AVENUE AND ROSA VISTA AVENUE WATER MAIN REPLACEMENT PROJECT C15-133

The work described herein shall be performed according to the Citrus Heights Water District General Specifications as follows:

1. SCOPE OF WORK

The work shall include installing:

- 1470 lineal feet of 12” Pressure Class 350 Ductile Iron Pipe (PC350 DIP)
- 110 lineal feet of 8” Pressure Class 350 Ductile Iron Pipe (PC350 DIP)
- 43 lineal feet of 6” Pressure Class 350 Ductile Iron Pipe (PC350 DIP)

The work shall also include installing:

- Three (3) 12” resilient wedge gate valves
- Five (5) 8” resilient wedge gate valves
- One (1) 6” resilient wedge gate valve
- One (1) 1” air/vacuum valve

The work shall also include installing:

- One (1) 1” metered water service
- Twelve (12) 1” water services with curb stops
- Eight (8) 1” reconnected water services

The work includes all labor, materials, equipment, and incidentals, to completely install an operating facility in accordance with these Citrus Heights Water District General Specifications and the Contract Documents.

The Work shall be complete, and all work, materials, and services not expressly shown or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be performed, furnished, and installed by the Contractor as though originally so specified or shown, at no increase in cost to the District.

2. DISTRICT FURNISHED ITEMS

- The District shall furnish water for construction at no cost to the Contractor.

- The District shall provide for initial compaction testing as deemed necessary by the District at no cost to the Contractor.

- The District shall provide for bacteriological sampling of the water in the water main and services prior to reconnection of same at no cost to the Contractor.

- The District shall provide an Encroachment Permit approved by the City of Citrus Heights and pay all costs for fees and inspection at no cost to the Contractor.

- The District shall file and maintain a Notice of Exemption for the California Environmental Quality Act (CEQA).

3. CONTRACTOR FURNISHED ITEMS

- The Contractor shall furnish all other material including but not limited to pipeline and appurtenances, sand, 3/4" aggregate base, concrete for thrust blocks, temporary and final paving, and hauling and disposal of spoils. The Contractor is advised to order and acquire the specified materials well enough in advance so as not to cause the Project to be delayed or to necessitate substitutions. Additional work days will not be granted for failure to obtain materials in a timely manner.

- The Contractor shall be responsible for obtaining any necessary permit for the disposal of chlorinated water and coordinating with the proper agency. Any variation on this method will require approval in advance by Citrus Heights Water District. The discharge of chlorinated water into any surface water drainage system is strictly prohibited by law.

- The Contractor shall provide a supplemental Encroachment Permit approved by the City of Citrus Heights. There is no charge for this supplemental permit.

- The Contractor shall furnish a Traffic Control Plan approved by the City of Citrus Heights. The Traffic Control Plan shall comply with the City of Citrus Heights Encroachment Permit.

4. ITEMS OF WORK, MEASUREMENT AND PAYMENT

Bid Item 1, Mobilization: Includes obtaining a temporary discharge permit as required. Includes preparatory work and operations, including, but not limited to, that necessary for the movement of personnel, equipment, supplies, and incidentals to the Project site; for the establishment of all work site offices, buildings, and other facilities necessary for the Project; and for all other work and operations which must be performed, including costs incurred, prior to beginning work on the various contract items at the work site.

The bid item for mobilization shall be no more than eight percent (8%) of the total contract amount. The first payment for mobilization shall be one hundred percent (100%) of the bid item amount. The Contractor shall submit an invoice to the District for payment of mobilization upon execution of the Agreement for Construction Services.

Bid Item 2, Sheeting, Shoring and Bracing: Consists of providing sheeting, shoring and bracing for below-grade excavations as is necessary to provide a safe work environment for the workers. The Contractor shall be responsible for the proper application of sheeting, shoring, and bracing as required at any trench depth. Furthermore, the Contractor shall comply with all requests by the District Inspector for applying of sheeting, shoring, and bracing at any trench depth.

The Contractor shall refer directly to Title 8 of the California Code of Regulations and the Labor Code, produced by the State of California Department of Industrial Relations and the Cal/OSHA Consultation Service Research and Education Unit, for detailed information regarding the regulation's scope, specifications, and exceptions and for other requirements that may be applicable to their operations.

The bid item for sheeting, shoring, and bracing shall be no more than one percent (1%) of the total contract amount. The first payment for sheeting, shoring, and bracing shall be one hundred percent (100%) of the bid item amount. The Contractor shall submit an invoice to the District for payment of sheeting, shoring, and bracing upon execution of the Agreement for Construction Services.

Bid Item 3, Traffic Control Plan and Implementation: Includes preparing and obtaining approval for a Traffic Control Plan, procurement and placement of all traffic control materials, equipment, and markings, and fulfillment of all other requirements as specified in the approved Traffic Control Plan. The Contractor shall coordinate required inspections with the City of Citrus Heights Encroachment Inspector. The Contractor shall comply with the approved City of Citrus Heights Encroachment Permit, and shall implement traffic control procedures as directed by the City Inspector and the District Inspector. The Contract lump sum price paid for Traffic Control Implementation includes compensation for all labor, materials, tools, equipment and incidentals and for all work involved with Traffic Control Implementation, including placement of surface mounted channelizers, electronic advance message boards, flashing arrow boards, construction area and stationary mounted signs, project information signs, flagging, removal of all traffic control materials, equipment, and markings from the site upon completion of work, complete in place, as shown on the Project Plans and as directed by the City Inspector.

The bid item for the traffic control plan and implementation shall be no more than five percent (5%) of the total contract amount. The first payment for the traffic control plan and implementation shall be fifty percent (50%) of the bid item amount and shall be invoiced with the Contractor's monthly payment request following receipt of the Notice to Proceed from the District. The remaining fifty percent (50%) of the bid item amount shall be invoiced by the Contractor with the following monthly payment request.

Bid Item 4, Storm Water Pollution Prevention Implementation: Includes procurement and placement of all storm water pollution protection materials and equipment, and fulfillment of all other requirements as specified in the Project Plan. The Contractor shall coordinate required inspections with the City of Citrus Heights Encroachment Inspector and the District Inspector. The Contractor shall comply with changes to the approved storm water pollution protection plans as required by the City of Citrus Heights Encroachment Inspectors and the District Inspector. The contract lump sum price paid for Storm Water Pollution Prevention Implementation includes compensation for all labor, materials, tools, equipment and incidentals and for doing all work involved with Storm Water Pollution Prevention Implementation, including filter bags, gravel filled bags, geotextile fabric or erosion control blankets, staples, temporary fiber rolls, stakes, and removal of all storm water pollution protection materials and equipment from the site upon completion of work and as directed by the City and District Inspectors.

The bid item for the storm water pollution prevention plan and implementation shall be no more than one percent (1%) of the total contract amount. Payment for the storm water pollution prevention plan and implementation shall be one hundred percent (100%) of the bid item amount and shall be invoiced with the Contractor's monthly payment request following receipt of the Notice to Proceed from the District.

Bid Item 5, Install 8" Pressure Class 350 Ductile Iron Pipe (PC350 DIP) Water Main (Trench Depth 60" Max.): The Contractor is advised that 8" Pressure Class 350 Ductile Iron Tyton Joint Pipe (PC350 DIP) may be specified for use in connections to existing water mains on the Plans or elsewhere in the Contract and Specifications.

Includes construction saw cutting and removal of existing paving, excavation, all potholing prior to or during construction, and the installation of 8" Pressure Class 350 Ductile Iron Tyton Joint Pipe (PC350 DIP) water main as indicated on the Project Plan. Includes the installation of tees, elbows, caps, spools, and adaptors, flexible couplings, nuts, bolts, gaskets, insulated locator wire and non-detectable locator tape, thrust blocks, backfill, compaction, and temporary paving. Includes disinfection, hydrostatic pressure testing (150 PSI for two hours), flushing, and bacteriological testing of the new water mains prior to connecting to the existing water mains. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "TREN_713CH" and "TREN_712".

Bid Item 6, Install 8" Pressure Class 350 Ductile Iron Pipe (PC350 DIP) Water Main (Trench Depth Greater Than 60" Max.): Excavation below the 60" maximum trench depth shall only be approved for the purposes of crossing below existing utilities. This bid item is reserved for said areas only and may not be required for the construction of this project.

Includes construction saw cutting and removal of existing paving, excavation, all potholing prior to or during construction, and the installation of 8" Pressure Class 350 Ductile Iron Tyton Joint Pipe (PC350 DIP) water main as indicated on the Project Plan. Includes the

installation of tees, elbows, caps, spools, and adaptors, flexible couplings, nuts, bolts, gaskets, insulated locator wire and non-detectable locator tape, thrust blocks, backfill, compaction, and temporary paving. Includes disinfection, hydrostatic pressure testing (150 PSI for two hours), flushing, and bacteriological testing of the new water mains prior to connecting to the existing water mains. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "TREN_713CH" and "TREN_712".

Bid Item 7, Install 8" CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) Water Main (Trench Depth 60" Max.): 8" CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) water main shall be installed in all areas where separation from parallel sewer or drain lines is less than ten feet (10'), as specified in Construction Detail TREN_783, or when crossing sewer or drain lines in areas where special water pipe is required at trench depth of 60" maximum, as specified in Construction Detail TREN_782.

Includes construction saw cutting and removal of existing paving, excavation, all potholing prior to or during construction, and the installation of 8" CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) water main as indicated on the Project Plan. Includes the installation of tees, elbows, caps, spools, and adaptors, flexible couplings, nuts, bolts, gaskets, insulated locator wire and non-detectable locator tape, thrust blocks, backfill, compaction, and temporary paving. Includes disinfection, hydrostatic pressure testing (150 PSI for two hours), flushing, and bacteriological testing of the new water mains prior to connecting to the existing water mains. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "TREN_713CH" and "TREN_712".

Bid Item 8, Install 8" CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) Water Main (Trench Depth Greater Than 60" Max.): Excavation below the 60" maximum trench depth shall only be approved for the purposes of crossing below existing utilities. This bid item is reserved for said areas only and may not be required for the construction of this project.

Includes construction saw cutting and removal of existing paving, excavation, all potholing prior to or during construction, and the installation of 8" CL305 DR 14 AWWA C900-07 Polyvinylchloride (PVC) water main as indicated on the Project Plan. Includes the installation of tees, elbows, caps, spools, and adaptors, flexible couplings, nuts, bolts, gaskets, insulated locator wire and non-detectable locator tape, thrust blocks, backfill, compaction, and temporary paving. Includes disinfection, hydrostatic pressure testing (150 PSI for two hours), flushing, and bacteriological testing of the new water mains prior to connecting to the existing water mains. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "TREN_713CH" and "TREN_712".

Bid Item 9, Install 6" Pressure Class 350 Ductile Iron Pipe (PC350 DIP) Water Main (Trench Depth 60" Max.): The Contractor is advised that 6" Pressure Class 350 Ductile

Iron Tyton Joint Pipe (PC350 DIP) may be specified for use in connections to existing water mains on the Plans or elsewhere in the Contract and Specifications.

Includes construction saw cutting and removal of existing paving, excavation, all potholing prior to or during construction, and the installation of 6" Pressure Class 350 Ductile Iron Tyton Joint Pipe (PC350 DIP) water main as indicated on the Project Plan. Includes the installation of tees, elbows, caps, spools, and adaptors, flexible couplings, nuts, bolts, gaskets, insulated locator wire and non-detectable locator tape, thrust blocks, backfill, compaction, and temporary paving. Includes disinfection, hydrostatic pressure testing (150 PSI for two hours), flushing, and bacteriological testing of the new water mains prior to connecting to the existing water mains. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "TREN_713CH" and "TREN_712".

Bid Item 10, 8" Connection to Existing 8" Water Main: Includes connecting newly constructed 8" water main to existing 8" water main as indicated on the Project Plan. Includes installing all materials and fittings, with the exception of water main, as necessary to obtain proper alignment with the existing water main as indicated on the Project Plan. Water main shall be invoiced at the linear footage price as part of the appropriate bid item. Includes potholing prior to construction, insulated locator wire and non-detectable locator tape, backfill, and compaction. Includes disinfection, flushing, and bacteriological testing. Includes removal of existing caps and blow-offs, valve boxes and risers, and thrust blocks regardless of size. Payment shall be at the contract unit price per each unit, complete.
See Project Plans, Sheet 4, Note 1.
See Project Plans, Sheet 6, Note 3.
See Project Plans, Sheet 7, Note 10.

Bid Item 11, 8" Connection to Existing 6" Water Main: Includes connecting newly constructed 8" water main to existing 6" water main as indicated on the Project Plan. Includes installing all materials and fittings, with the exception of water main, as necessary to obtain proper alignment with the existing water main as indicated on the Project Plan. Water main shall be invoiced at the linear footage price as part of the appropriate bid item. Includes potholing prior to construction, insulated locator wire and non-detectable locator tape, backfill, and compaction. Includes disinfection, flushing, and bacteriological testing. Includes removal of existing caps and blow-offs, valve boxes and risers, and thrust blocks regardless of size. Payment shall be at the contract unit price per each unit, complete.
See Project Plans, Sheet 4, Note 9.

Bid Item 12, Install 8" Resilient Wedge Gate Valve: Includes installing a 8" FL x FL or FL x MJ resilient wedge gate valve. Includes valve box, valve access riser, and locator wire. Payment shall be at the contract unit price, complete.
See CONTRUCTION DETAILS, Construction Detail "VB_811".

Bid Item 13, Install 6" Resilient Wedge Gate Valve: Includes installing a 6" FL x FL or FL x MJ resilient wedge gate valve. Includes valve box, valve access riser, and locator wire. Payment shall be at the contract unit price, complete.
See CONTRUCTION DETAILS, Construction Detail "VB_811".

Bid Item 14, Install Dry Barrel Steamer Fire Hydrant: Includes installing a dry barrel steamer fire hydrant. Includes construction saw cutting and removal of existing paving, potholing during construction, excavation, thrust block, backfill, compaction, and temporary paving. Includes disinfection, bacteriological and hydrostatic pressure testing (150 PSI for two hours), and flushing. Payment shall be at the contract unit price, complete. Fire hydrant lateral piping to be installed and invoiced per Bid Item 9.
See CONTRUCTION DETAILS, Construction Detail "FH_612".

Bid Item 15, Install 1" Metered Water Service: Includes the installation of a 1" polyethylene metered water service meter as specified by directional boring or open-cut trenching. Includes backfill, compaction, disinfection, and hydrostatic pressure testing (150 PSI for two hours). Includes construction saw cutting and removal of existing paving, potholing during construction, excavation, non-detectable locator tape, backfill, compaction, and temporary paving. 1" meter setter will be supplied by the District at no cost to the Contractor. Includes installing 1 ¼" Schedule 40 PVC pipe with Schedule 80 fittings on the customer side to reconnect from the new meter location to the customer service line as indicated on the Project Plan. Includes removing and reinstalling the existing water meter at the new location and removing the existing meter setter and meter box. Includes cutting, capping, and abandoning the existing water line. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, See Construction Detail "WS_102PE", Detail TREN_721", and "TREN_723CH".

Bid Item 16, Install 1" Water Service with Curb Stop: Includes the installation of a 1" polyethylene water service as specified by directional boring or open-cut trenching. Includes installation of a 1" curb stop and connecting to customer's existing 1" meter setter at the existing meter box with all brass fittings as required. Includes excavating and reinstalling the existing meter box to proper grade with new 2" x 6" pressure treated Douglas Fir supports and replacing the ¾" clean crushed rock. Includes cutting, capping, and abandoning the existing water line. Includes backfill, compaction, disinfection, and hydrostatic pressure testing (150 PSI for two hours). Includes construction saw cutting and removal of existing paving, potholing during construction, and excavation, non-detectable locator tape, #10 insulated copper locator wire, backfill, compaction, and temporary paving. Payment shall be at the contract unit price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "WS_108PE", Detail TREN_721", and "TREN_723CH".

Bid Item 17, Abandon 1" Water Service at Meter Box: Includes removing and disposing of an existing 1" water service including box and lid at the meter box by cutting and capping the abandoned service 12-inches minimum below grade. Includes ¾"

aggregate base or native backfill, and mechanical compaction to 95%. Payment shall be at the contract unit price, complete.

Bid Item 18, Remove 1" Service Saddle and Install Repair Band on Water Main: Includes removing and disposing of an existing water service saddle and installation of a 12" minimum length stainless steel repair band. Includes ¾" aggregate base or native backfill, mechanical compaction to 95%, and temporary paving if required. Payment shall be at the contract unit price, complete.

Bid Item 19, Remove Existing Valve Box: Includes removing and disposing of an existing water main valve box and cutting the existing access riser 12-inches minimum below grade. Includes ¾" aggregate base backfill, mechanical compaction to 95%, and temporary paving. Payment shall be at the contract unit price, complete.

Bid Item 20, Install Concrete Fire Hydrant Access Pad: Includes installation of a concrete fire hydrant access pad only at locations as indicated on the Project Plans. Payment shall be at the contract price per each unit, complete.
See CONTRUCTION DETAILS, Construction Detail "FH_683".

Bid Item 21, 4" Max. Asphaltic Concrete (AC) Paving Restoration: This work includes finish saw cutting, removal, subsurface recompaction and replacement with 1/2" aggregate Asphalt Concrete to a 4" Maximum depth (installed in 2" maximum lifts) in accordance with Section 14 "Restoration of Surfaces" and Section 23 "Asphalt Concrete" of the County of Sacramento Standard Construction Specifications. Spoils from demolition shall be properly disposed of by the Contractor outside County right -of-way. Sand Seal Coat used for surface restoration shall comply with Section 14-3.03 "Seal Coats" of the County of Sacramento Standard Construction Specifications. Includes replacement of all pavement markings and reflective buttons disturbed during the project and as directed by the Inspector.

Final paving lift shall be applied using a paving finishing machine to provide an even surface with minor compaction. Hand raking of the final paving lift shall be minimal and only in areas where a paving finishing machine cannot be used. No disturbance of the paving shall be allowed until a pavement roller has adequately compacted the paving, and the paving has properly cooled. All paving not conforming to said specifications shall be removed and properly replaced by the Contractor at no cost to the District.

In addition to the provision in Section 14-7 "Measurement and Payment" of the County of Sacramento Standard Construction Specifications, the following measurement and payment shall apply:

The contract unit price paid per square foot for 4" Asphaltic Concrete (AC) Paving Restoration with Standard Grind Width on Both Sides shall include compensation for all labor, materials, tools, equipment and incidentals and for doing all work involved in 4" Asphaltic Concrete Paving Restoration Above the Trench Zone, including Sand Seal

Coat, including all pavement striping, lettering, and reflective buttons, complete in place, as shown on the plans, as specified in these specifications, and as directed by the District Inspector. Payment shall be based upon the quantity of paving restoration, not the quantity of sand seal coat.
See CONTRUCTION DETAILS, Construction Details "TREN _713CH" and "TREN _723CH".

Bid Item 22, Concrete Restoration: This work includes construction and finish saw cutting, removal, subsurface recompaction with 4" minimum 3/4" aggregate base compacted to 95%, and replacement with six-sack concrete mix, and finish to match existing. The replaced curb, gutter and sidewalk shall be constructed in conformance with County of Sacramento Standard Construction Specifications Plan 4-30, and Section 27 "Curbs, Gutters, Sidewalks, and Drainage Structures" of the County of Sacramento Standard Construction Specifications. Spoils from demolition shall be properly disposed of by the Contractor outside City right of way.

The contract unit price paid per square foot for Concrete Restoration shall include compensation for all labor, materials, tools, equipment and incidentals and for doing all work involved in Concrete Restoration, including furnishing and placing aggregate base material, complete in place, as shown on the plans, as specified in these specifications, and as directed by the City and District Inspector.
See SPECIAL PROVISIONS, Concrete Restoration.

Bid Item 23, Landscape Restoration – Lawn or Planter Area: This work consists of restoring customer's lawn or planter area to its original or better condition prior to water installation. Includes sod removal and replacement or reinstallation, grading, mulching, irrigation and sprinkler systems, and a general site cleanup. Payment shall be at the contract price per each unit, complete.
See SPECIAL PROVISIONS, Landscape Restoration.

5. ORDER OF WORK

The order of work outlined below is to minimize public inconvenience and water service interruptions. The Contractor is to submit a more detailed written schedule of the order of work based on this outline.

1. Obtain approvals of submittals for the following items: Discharge permit if required, materials, pipeline and appurtenances, backfill material design, asphalt mix design, concrete design mix, and Construction Schedule.

2. Order and coordinate delivery of material and equipment, and request location services from Underground Service Alert (USA). Telephone: 1-800-642-2444 or 811.

3. Install new water mains with temporary caps with 2" blow-offs at points of

connection to the existing system. Obtain approval from the District for installation and then backfill excavation.

4. Install water services in accordance with District General Specifications. Obtain approval from the District for installation and then backfill excavation.

5. Install temporary 2" Construction Water Service as required by the District Inspector to allow pressurization of the old system and the new system simultaneously.
   See CONTRUCTION DETAILS, Construction Detail WS_290.

6. Flush and hydrostatically test water mains and services. District performs bacteriological sampling.

7. Connect all water services to customers' lines upon notification by District of satisfactory bacteriological sampling.

8. Coordinate with District Inspector for connecting new water mains to existing water mains upon notification by District of satisfactory bacteriological sampling.

9. Abandon old facilities. All open ends of old facilities shall be concrete capped. All abandoned valve boxes shall be removed.

10. Restore sites to pre-construction conditions as required and obtain approval from the District and the City of Citrus Heights.

6. BACTERIOLOGICAL TESTING PROCEDURE AND TIMETABLE

Before project construction begins:

1. CHWD Water Quality personnel shall sample for both Coliform (Presence/Absence) and Heterotrophic Plate Count (HPC) on mains adjacent to the project. (SimPlate may be substituted for HPC)

During project:

2. CHWD Project Management personnel will provide a 24-hour notice to the Regional Water Quality Control Board for all flushing events.

3. The newly constructed mains shall be filled by the contractor and purged to remove any trapped air using the District-approved and tested backflow prevention device specification. All best management practices shall be followed to insure no sediment or chlorine reaches any drain inlet or creek.

4. The newly constructed mains shall pass the District pressure check requirements.

5. The mains shall be chlorinated at 100 ppm for a minimum of 24 hours by the contractor using an approved chlorination specialist.

6. The chlorine concentration shall be checked after 24 hours and a minimum residual of 25 ppm must be present throughout the new mains.

7. The mains shall be flushed by the contractor until the chlorine concentration matches the normal system residual. All best management practices shall be followed to insure no sediment or chlorine reaches any drain inlet or creek.

8. CHWD Project Management personnel shall submit a sampling plan to the Operations Manager for approval.

9. CHWD Water Quality personnel, when practical, will collect Coliform and HPC samples according to the approved sampling plan. The sampling schedule will be submitted to the Operations Manager and the Water Quality Supervisor with at least a 24-hour notice.

10. Samples shall be taken for both Coliform and Heterotrophic Plate Count (HPC) at 24 and 48 hour intervals after completion of flushing.

11. CHWD Project Management personnel shall submit negative sample documentation to Operations Manager for acceptance prior to the any connections to the CHWD distribution system. Sample result documentation generally takes 3-5 business days after samples are delivered to lab.

12. CHWD Water Quality personnel will sample mains downstream of project for Coliform and HPC after the new main is connected to the CHWD distribution system.

The Contractor shall allow 8-10 business days for the Disinfection/Sampling Procedure prior to any connection to the District's distribution system. Larger systems will require additional time for chlorination and flushing. Bacteriological samples shall only be collected between 8:00am and 2:00pm Monday through Thursday. Any positive results on any sample taken shall require a repeat of the Disinfection/Sampling Procedure until all samples test negative. HPC samples require a plate count of less than 500 on any sample taken.

1. DAY 1 - Chlorinate new mains to 100 PPM and complete to allow flushing time on following day.

---24-hour chlorine detention period---

2. DAY 2 - Flush new mains to normal residual and complete before 2:00pm. (Similar to system residual)

---24-hour sampling detention period---

3. DAY 3 - Obtain first Coliform and HPC samples before 2:00pm.

---24-hour sampling detention Period---

4. DAY 4 - Obtain second Coliform and HPC samples before 2:00pm.

---3 to 5 business days for laboratory testing and review---

5. DAY 7-9 - Sample documentation provided to Operations Manager and customer notification of shut-down

---24-hour notification period---

6. DAY 8-10 - Connection to CHWD distribution system only after clearance from Operations Manager is received.

7. EXCAVATION AND POTHOLING

Prior to beginning any excavation, the Contractor shall call Underground Service Alert (USA) (800) 642-2444 or 811, at least two (2) working days in advance, to arrange for utility location. The Contractor shall be responsible for the location and protection of all existing utilities. **The Contractor shall expose and verify locations and elevations of existing utilities prior to construction as specified in the plans and specifications. The types, locations, sizes and/or depths of the existing underground utilities as shown on the plans were obtained from sources of varying reliability. The Contractor is cautioned that only actual excavation will reveal the types, extent, sizes, location, and depths of such underground utilities. If a utility is damaged, the Contractor shall contact the utility company immediately for repair.** The Contractor shall pay all costs for such repair if said damage is determined to be the responsibility of the Contractor. The Contractor shall receive no additional compensation for removing and reinstalling any pipe or appurtenances due to a lack of proper advance potholing.

Removal of soil, concrete, asphalt and other existing improvements shall be considered as excavation. Excavation shall also include exploration and/or “Potholing” to determine the location of existing underground facilities and obstructions, and shall be considered as a normal part of this work.

The Contractor shall immediately advise the District of inaccurate pothole data or any other pothole data which presents a conflict to the proposed water main alignment. The District shall provide direction in advance of any water main installation to resolve the conflict.

The District assumes no responsibility for the accuracy of utility markings other than water mains and appurtenances. Should the Contractor fail to locate any utility, the Contractor shall be solely responsible for contacting that utility to schedule a re-mark. The Contractor is advised that the District assumes no responsibility for additional costs for further excavation to locate a non-water related utility.

Furthermore, should the Contractor choose to abandon all attempts to locate a utility, the Contractor is hereby advised that they are proceeding with water main installation at their own risk. The District will not provide any written waiver of the requirement to locate in such case. Should the Contractor later encounter the utility during trenching operations, the District assumes no responsibility for cost of realignment of the new water main or repair for damage to the utility.

8. REMOVAL, RELOCATION OR PROTECTION OF EXISTING UTILITIES

In accordance with the provisions of Section 4215 of the California Government Code, any contract to which a public agency, as defined in Section 4402, is a party, the public agency shall assume the responsibility, between the parties to the contract, for the timely removal, relocation, or protection of existing main or trunk-line utility facilities located on the site of any construction project that is a subject of the contract, if such utilities are not identified by the public agency in the Project Plans and general specifications made a part of the Notice Inviting Bids. The agency shall compensate the Contractor for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and general specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work.

The Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay was caused by the failure of the public agency or the owner of the utility to provide for removal or relocation of such utility facilities.

Nothing herein shall be deemed to require the public agency to indicate the presence of existing service laterals or appurtenances when the presence of such utilities on the site of the construction project can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site or construction; provided, however, nothing herein shall relieve the public agency from identifying main or trunk lines in the Project Plans and specifications.

If the Contractor, while performing the Contract, discovers utility facilities not identified by the public agency in the contract Documents it shall immediately notify the public agency and utility in writing.

The public utility, where they are the owners, shall have the sole discretion to perform such repairs or relocation work or permit the Contractor to do such repairs or relocation

work at a negotiated price.

The Contractor shall cooperate fully with all utility forces of the District or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the work, and shall schedule the work so as to minimize interference with said relocation, altering, or other rearranging of facilities.

9. HOURS OF WORK

The Contractor shall schedule all work activities per the City of Citrus Heights Encroachment Permit, Monday through Friday, with Saturdays, Sundays, and District Holidays being excluded. The Contractor shall indicate the need for non-normal work hours in the various schedules submitted during the progress of the Project.

Overtime work shall not entitle the Contractor to any compensation for any contract item in addition to that stipulated in the contract for the kind of work performed. In case of extra work ordered by the District, no additional payment shall be made to the Contractor because of the payment by him of overtime wage rates for such work, unless the use of overtime work in connection with such extra work is specifically ordered in writing by the District, and then only to such extent as extra payment is regularly being made by the Contractor to his personnel for overtime work of a similar nature in the same locality.

If, due to Contractor negligence, the District is called out after hours to restore water service, the Contractor shall be back-charged at a rate of $75 per hour per District employee for said restoration. All such charges shall be documented by the District and deducted by the District from retention monies due the Contractor.

10. MATERIAL SUBMITTALS

The Contractor shall submit the following items for District approval prior to the beginning of the Project:

Submittal List

Item Description	Submittal Summary
Pipe, Valves and Fittings	Product Data Sheets or other information
Service Materials	Product Data Sheets or other information
Valve Boxes and Lids	Product Data Sheets
Sand	Gradation and Material Certification
Import Backfill	Gradation and Material certification
Asphalt Mix Design	Mix Design
Concrete Mix Design	Mix Design
Chlorination Specialist	Applicable State Contractors License Number

11. VARIATIONS FROM PLANS AND SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS

Any portions of the work, which do not conform to the General Specifications, Special Provisions, Construction Details, Map and Project Plans, or other Contract Documents, shall be clearly identified by the Contractor in a written letter noting such variation. In the event of a conflict between the General Specifications and Special Provisions, the Special Provisions shall prevail.

The District reserves the right to make such modifications or alterations, reductions or omissions, extra or additional work to the General Specifications and Contract Documents, including the right to increase or decrease the quantity of any item or portion of the work or to omit any item or portion of the work, as may be deemed by the District as necessary or advisable, and to require such extra work as may be determined by the District to be required for the proper completion or construction of the whole work contemplated. All charges shall be considered a part hereof and subject to each and all of its terms and requirements.

Increases or decreases in the quantities shown in the bid schedule, regardless of the magnitude of the change, the percentage change from the bid schedule quantity or the elimination of a contract item of work does not constitute a change requiring a change order, a change in the scope of the work, or a change in the character of the work. Contractor shall be paid the unit price quoted in the Proposal for Construction Services for the actual quantities used.

No change or deviation from the Contract Documents or General Specifications shall be made by the Contractor without written authorization from the District setting forth a complete description of the change.

12. CALIFORNIA CONTRACTOR'S LICENSE CLASSIFICATION

In accordance with the provisions of California Public Contract Code Section 3300, the District has determined that the Contractor must possess a valid California State Class A - General Engineering Contractor Contractor's License at the time that the Contract is awarded and throughout the Contract's duration. Failure to possess the specified license shall render the bid as non-responsive, and shall act as a bar to award the Contract to any bidder not possessing said license at the time of award.

13. SUBCONTRACT DOCUMENTS

Subcontractor(s) shall possess a valid California State Contractor's License as applicable to the work performed. All subcontracts shall include provisions that the Contract between the District and Contractor is part of the subcontract, and that all terms and provisions of said Contract are incorporated in the subcontract. Copies of the subcontract shall be made available to the District upon written request and shall be provided to the

District at the time any litigation is filed against the District concerning the Project. The Contractor shall pay subcontractor(s) for completed work within thirty (30) days of receipt of payment from the District.

14. PERMIT FOR CONSTRUCTION WATER

A Construction Water Permit, a fire hydrant meter, and a fire hydrant meter deposit is required for use of any District fire hydrant(s). The construction water fees are waived for the duration of the Contract and shall entitle the Contractor access to and reasonable use of water from assigned fire hydrants connected to the District's water distribution system.

15. SAFETY AND HEALTH PROVISIONS

Fixed or portable chemical toilets, properly obscured from public observance, shall be provided for the use of the employees of the Contractor. Toilets at the site shall conform with OSHA Safety and Health Standards for Construction. Toilets shall be serviced daily and shall be removed from the work site on Saturdays, Sundays, and District Holidays unless work is authorized for those days.

16. INJURY AND ILLNESS PREVENTION/HAZARD COMMUNICATION

The Contractor shall maintain written "Injury and Illness Prevention," "Confined Space Entry," and "Hazard Communications" programs and shall provide the District with documentation of same prior to the execution of the Agreement for Construction Services.

17. PRE-CONSTRUCTION CONFERENCE

A Pre-construction Conference shall be held at the office of the Project Manager (Citrus Heights Water District, 6230 Sylvan Road, Citrus Heights, CA 95610) for the purpose of discussing with the Contractor the Scope of Work, General Specifications, existing conditions, submittals, materials, construction equipment, and other essential matters relating to the satisfactory completion of the work. This conference shall be held prior to the issuance of the Notice to Proceed. The Contractor's representatives shall include the Competent Person, Project on-Site Superintendent, other primary superintendents and may also include representative's subcontractors, service providers and material suppliers if any.

18. PROJECT MEETINGS

The Contractor, the District Inspector, and Project Manager shall establish a routine meeting schedule throughout the course of the Project to discuss progress, changes, questions, and to update the Project Schedule. Meetings shall occur at two week intervals or more frequently if needed.

19. CONSTRUCTION SCHEDULE

A Construction Schedule shall be prepared and submitted by the Contractor to the District for review and approval prior to the issuance of the Notice to Proceed. Biweekly updates shall be provided thereafter and until completion of the project. Full compensation for preparing the Construction Schedule and biweekly updates thereto shall be considered as included in the contract prices paid for the various items of work, and no additional payment will be allowed therefor.

20. EMERGENT MATTERS AFTER HOURS

Matters requiring an emergent response after working hours include but are not limited to public safety and the protection of private property, such as; degradation of temporary paving, unsafe traffic plates, leaking piping, customers without water service, violations of storm water pollution prevention implementation and unsafe construction. The Contractor is advised that the District has the authority to determine what matters shall constitute an emergency, and the Contractor shall respond to all such emergencies until measures have been taken to remedy the matter to the District's satisfaction.

21. EMERGENCY CONTACT AND CONTRACTOR RESPONSE

Prior to commencement of the Project, the Contractor shall designate a competent person to be responsible for responding to emergencies during non-work hours resulting from the Contractor's work. Said person shall be available at all hours and shall be housed near the Project site. The maximum allowable response time shall be 30-minutes as determined by MapQuest. The District shall be provided with a cellular telephone number and other relevant contact information for said designated competent person. The Contractor is solely responsible for informing the District of any changes in designation of the responsible person or contact information during the course of the Project.

22. TRENCH AND EXCAVATION COMPETENT PERSON ASSIGNMENT AND RESPONSIBLITIES

The Contractor is hereby notified that a Trench and Excavation Competent Person shall be assigned to the Project at all times and shall be present on the Project during any and all work periods as specified in the Competent Person Assignment Form (see following page). The Trench and Excavation Competent Person shall be present at the Pre-Construction Conference and shall complete and sign this Form during the Conference. Should substitution of the assigned Trench and Excavation Competent Person be required, a new form shall be completed prior to initiating or continuing any work period, and that substituted Trench and Excavation Competent Person shall assume all responsibilities of the title.

Trench and Excavation "Competent Person" Assignment

PROJECT NAME: _____

(Name of individual)_____
has been designated a "Competent Person" for Trenching & Excavation Operations by

(Name of employer)_____
based on the individual's training, experience and demonstrated skills in the following:

1. Knowledge of Cal-OSHA Code of Regulations, Title 8, Article 6 Excavations (Section 1539-1547)
2. Soil classification
3. Use of protective systems and safe access to and from all work levels or surfaces

As such, the individual has the ability to detect:

1. Conditions that could result in cave-ins
2. Failures in protective systems
3. Potential hazardous atmospheres
4. Other hazards including those associated with confined spaces, and has
5. The authority to take prompt corrective measures to eliminate existing and predictable hazards and to stop work when required.

Inspections shall be made by the Competent Person and must be documented. The following specifies the frequency and conditions requiring inspections:

1. Daily and before the start of each shift
2. As dictated by the work being done in the trench
3. After every rainstorm or other events that could increase hazards, e.g. rain event, wind storm, thaw, earthquake, etc.
4. When fissures, tension cracks, sloughing, undercutting, water seepage, bulging of the trench, a change in soil types or other similar conditions that occur
5. When there is a change in the size, location, or placement of the spoil pile nearest the excavation
6. When there is any indication of change or movement in protective systems or adjacent structures

Designated by:

Signature: _____Date_____

Name _____Title_____

_____ Title_____ Date_____
Signature of individual assigned as Competent Person:

Office telephone number: ( ) _____ Cellular number: ( ) _____

After-hours telephone: ( ) _____ Pager number: ( ) _____

HIGHLAND AVENUE AND ROSA VISTA AVENUE WATER MAIN REPLACEMENT PROJECT C15-133

1. Traffic Control Requirements

The following traffic control requirements shall be adhered to as a basis for bidding purposes. The City of Citrus Heights shall provide the traffic control requirements upon submittal of the encroachment permit by the contractor. Adjustments may be required in the field for the purposes of installing the water main and appurtenances.

DRIVEWAY ACCESS: The Contractor shall allow driveway access (ingress and egress) for all residential properties within the temporary traffic control zone unless special arrangements are approved by the property owner and City.

PEDESTRIAN ACCESS: All temporary traffic controls shall incorporate measures to ensure full and safe access for pedestrians and shall be in full compliance with the Americans with Disabilities Act (ADA) and Title 24 of the California Code. Submittal of separate pedestrian signage and routing plans may be required by the City to ensure compliance with access requirements.

BICYCLE ACCESS: When the road shoulder or designated bike lane is blocked by work zone or temporary traffic control measures, temporary traffic controls shall be incorporated to provide safe passage for bicyclists through the work zone. "Share the Road" signs shall be placed at the beginning of the taper or closure and a minimum lane width of 12 feet shall be maintained in the lane shared by bicycles.

LANE CLOSURES (Residential Collector Streets with 2 lanes): Single lane closures with flaggers are only allowed between 8:30 am and 3:30 pm.

- No night work is allowed on this project.

2. U.S.A. Markings and Tire Markings

The Contractor shall be responsible for removal of all U.S.A. markings and tire markings from construction equipment via power-washing or other approved method at no additional expense to the District.

3. Damage to Pavement and Concrete

The Contractor shall provide all necessary protection to existing pavement and concrete so as to avoid scraping, gouging, imprinting, cracking edges or otherwise causing damage during the entire Project. The Contractor shall exercise caution to avoid damaging pavement along the edge of pavement where the water main is to be installed on the shoulder of the roadway. The District Inspector or the City of Citrus

Heights Encroachment Inspectors shall direct the contractor to repair any damage as deemed necessary. The Contractor shall repair said damage using methods required by the Inspector or shall agree to an alternative method in advance of said repairs. All costs of repairs to existing pavement and concrete due to damage caused by the Contractor shall be solely the responsibility of the Contractor.

4. Storage of Equipment and Materials

Storage of equipment and materials on the properties shall not be permitted without the written permission of the property owner. The Contractor shall contact the City of Citrus Heights to determine if any use permits are required and obtain same, if required, at no additional expense to the District.

Storage of equipment and materials within the City of Citrus Heights right-of-way shall require coordination with the District Inspector and the City of Citrus Heights Encroachment Inspector.

5. Minimum Cover

Minimum cover on all main lines shall be 36” below finish grade unless otherwise shown on the plans or specifically approved by the District Inspector. Minimum cover on all service lines shall be 24” below finish grade unless otherwise specifically approved by the District Inspector. For the purposes of this contract “finish grade” shall be the grade of the completed trench, including restored surfaces. The restored surfaces shall match existing grade.

6. Backfill, Compaction, and Compaction Testing

Lawn, Planter, and Other Non-traffic Locations: Backfill around service piping, valves and fittings shall be #2 washed sand to a minimum of 3” below and 9” above. Backfill around water mains and service saddles shall be #2 washed sand to a minimum of 6” below and 12” above. Remaining backfill shall be 100% ¾” crushed rock to the bottom of the meter box. Above this level, backfill shall be native soil at optimum moisture content, placed in 3” lifts and hand-compacted to 90% minimum.

Roadway, Driveway, and Traffic Locations: Backfill around service piping, valves and fittings shall be #2 washed sand to a minimum of 3” below and 9” above. Backfill around water mains and service saddles shall be #2 washed sand to a minimum of 6” below and 12” above.

Proper haunching of the pipe shall be achieved by hand shovel slicing sand under the haunches of the pipe. With the pipe in place, the first lift of sand shall not exceed the springline of the pipe. No additional sand shall be added until the entire section of pipe

has been properly haunched.

Compaction in the sanded pipe zone shall be 90% minimum. Remaining backfill shall be 100% ¾" crushed rock to the bottom of the meter box. Above this level, the remaining trench backfill shall be 100% import ¾" aggregate base compacted to 95% minimum.

Compaction at all paved locations shall be 95% minimum. Compaction at all other locations shall be 90% minimum unless otherwise specified by the District Inspector.

Initial compaction testing shall be performed at the discretion and expense of the District. Backfill not meeting compaction specifications shall be corrected by the Contractor at no additional expense to the District. Follow-up compaction testing shall be performed by the District at the expense of the Contractor. No extra time or payment shall be provided due to work delays for these tests.

Any surface settlement during the guarantee period shall be the responsibility of the Contractor.

7. Thrust Blocks

Thrust blocks shall be constructed of Type II six-sack Portland cement. Concrete shall conform to either the 1" or 1 ½" gradation at the option of the Contractor, unless otherwise specified in these Specifications or as required by the District Inspector. No backfill material shall be compacted above thrust blocks prior to a 24-hour period.

Trailers with "buggies" shall not be used to haul concrete. Concrete shall be hauled in cement mixing trucks or trailers only and shall be mechanically mixed at the site prior to placement.

8. Temporary Trench Restoration

Temporary paving (asphalt plant-mix cutback) shall be placed at locations and maintained at locations wherever excavation is made through pavement, sidewalk or driveways, as shown on the Project Plans, or as directed by the District. Temporary paving shall be placed as soon as the condition of the backfill is suitable to receive it and shall remain in place until the condition of the backfill is suitable for permanent resurfacing. Thickness of the temporary paving shall be one and one-half inches (1-½") unless otherwise shown on the Project Plans. Temporary paving shall be maintained at the same elevation as the existing surrounding surfaces until the permanent surfacing is placed. Temporary paving shall be placed using a hand powered compaction device.

Trench plates and their installation shall comply with the City of Citrus Heights

Encroachment Permit. Trench plates shall be pinned prior to subjecting them to public traffic. The edges of the trench plates shall be lined with temporary paving wedges. The 2" Construction Water Service (See Exhibit G, Construction Detail WS_290) and all temporary blow-offs shall be plumbed below the roadway surface and installed in traffic-rated valve boxes for the duration of the Project.

9. Service Valve Locations and Meter Installations

The Contractor shall advise the on-site property owner/tenant of water turn-off in writing 24 hours in advance and verbally after restoration of water service.

Unless as stated below, the meter and meter boxes shall be centered over the meter setter and shall typically be placed longitudinally perpendicular to the sidewalk.

The Contractor shall locate meters and meter boxes away from drainage swales and gutters whenever possible. The Contractor shall locate meters and meter boxes entirely within the landscape or lawn area whenever possible. If location in the landscape or lawn area is not possible, it shall be placed entirely in the sidewalk, driveway or paved area.

The Contractor shall be responsible daily for the removal and proper disposal of all landscaping, concrete, and excess native soil from the work zone. Temporary cold mix asphalt patches shall be required for concrete excavations that create a safety hazard or maintenance problem. All concrete replacement required by the Project installation shall be the responsibility of the Contractor. The Contractor shall replace all concrete driveways, curbs, gutters, and sidewalks and landscaping to its original condition within thirty (30) calendar days of removal.

10. Connection to Existing Services

The Contractor shall install all piping, meter setters, and fittings. The Contractor shall connect copper, brass, or PVC (Schedule 40 with Schedule 80 fittings) line to the customer's supply line as indicated on the Project Plans.

The Contractor shall connect to existing services using the appropriate adapter, bushing or reducer. When connecting to existing galvanized services the Contactor shall use only the Smith-Blair 411 metal couplings or equal as approved by the District. No Flow-Control PVC Schedule 40 couplings shall be allowed for connecting to any type of existing service. Note that the existing service size is not necessarily the same size as the meter setter and/or meter being installed. No direct metal connection shall exist between customer and District lines. No polyvinylchloride (PVC) pipe and fittings shall be used on the District side of the meter.

11. Flushing Service Lines

The Contractor shall be responsible for the thorough flushing of all water service line installations through an outside hose bib immediately following service connection with a meter idler (provided by District) in place to prevent a water consumption charge to the property owner. It shall be the Contractor's responsibility to investigate and resolve complaints regarding low flow, plugged lines, etc, which ensue after working on any water service.

12. Bronze Service Saddles

Water Service Saddles used in the course of the Project are to be bronze with an iron pipe thread (IPT) outlet. Saddles for ACP are to be of the double strap bronze variety. Saddles for PVC pipe and DIP pipe are to be full support, two-piece for PVC pipe and DIP pipe. All nuts and bolts are to be bronze. Saddles shall be Mueller, Jones, Ford, or equal.

13. Corporation Stops and Ball Valves

Corporation stops and ball valves used in the course of this Project shall have an iron pipe thread connection on one end and a Mueller 110 compression connection or equal on the other end.

14. Brass Fittings

Brass valves and fittings used in the course of this Project shall meet the requirements of the State of California and not exceed 0.25% lead content.

15. Compression Couplings

Compression Couplings used in the course of this Project shall have Mueller 110 compression connections or equal.

16. Polyvinylchloride (PVC) Pipe and Fittings for Service Reconnections

PVC Pipe used in the course of this Project for domestic service reconnections shall be a minimum of Schedule 40. All PVC fittings shall be Schedule 80. When connecting to existing galvanized services the Contactor shall use only the Smith-Blair 411 metal couplings or equal as approved by the District. No Flow-Control PVC Schedule 40 couplings shall be allowed for connecting to any type of existing service.

Approved plastic pipe cement shall be WET 'R DRY PVC 2725 Blue. Medium Bodied. Approved plastic pipe primer shall be WET 'R DRY PVC P-75 Aqua Blue Primer used to

connect the pipe and fittings.

17. Resilient Wedge Gate Valves

The resilient wedge gate valves shall fully comply with the latest revision of AWWA C509, and shall also be UL listed and FM approved. The valves shall be tested and certified to ANSI/NSF 61.

The valve shall have a 250 psig working pressure.

The valve type shall be NRS (non-rising stem).

The valve shall have an arrow cast on the operating nut or handwheel showing opening direction. The direction of opening shall be counterclockwise (left).

The NRS valves shall be provided with a 2” square operating nut. The bolt that attaches the operating nut to the stem shall be recessed into the operating nut so as not to interfere with valve wrench operation.

The valve body, bonnet, stuffing box, and disc shall be composed of ASTM A-126 Class B grey iron or ASTM A395 or A536 ductile iron. The body and bonnet shall also adhere to the minimum wall thickness as set forth in Table 2, section 4.3.1 of AWWA C509. Wall thickness less than those in Table 2 are not acceptable.

The valve disc and guide lugs must be fully (100%) encapsulated in SBR ASTM D2000 rubber material. The peel strength shall not be less than 75 pounds per inch.

The valves shall have all internal and external ferrous surfaces coated with a fusion bonded thermosetting powder epoxy coating of ten (10) mils nominal thickness. The coating shall conform to AWWA C550.

18. Chlorination and Flushing

The Contractor shall use a licensed Chlorination Specialist for the process of introducing a chlorine solution into the new water system. Said specialist shall maintain an Active C36 (Plumbing) and C55 (Water Conditioning) license with the California State Licensing Board.

Chlorine shall be introduced into the system at a minimum of 50 PPM and a maximum of 100 PPM. The Inspector shall be provided with proof of uniform chlorination throughout the system within the stated range using an approved test procedure. All requirements of American Water Works Association standard C651-05 (Disinfecting Water Mains) shall be followed.

Chlorinated water shall be properly disposed of using dechlorination procedures outlined in American Water Works Association standard C651-05 (Disinfecting Water Mains) and shall comply with all regulations. The Inspector shall be provided with proof of uniform dechlorination at a minimum of 10 minute intervals during disposal using an approved test procedure. Dechlorination shall be maintained at 0.0 PPM at all times during any disposal of any water into a drainage system.

19. Sprinklers

The properties may have underground sprinkler systems. It is the Contractor's responsibility to locate the system piping, and if disturbed, repair or replace it to its original condition at no cost to the District or property owner. Sprinkler system repairs and reconnections shall be made using Schedule 40 PVC pipe w/Schedule 40 fittings or better. Full compensation for restoration of existing sprinkler systems shall be considered as included in the contract unit prices paid for the various items of work, and no additional payment will be allowed therefor.

20. Concrete Restoration

- **Materials**

  Class A-2 Concrete – Shall contain six (6) sacks (564 pounds) of Portland cement per cubic yard and shall have a maximum size of course aggregate of three-quarter inch (3/4")

  Concrete shall be hauled in cement mixing trucks or a trailer mounted barrel mixer only and shall be mechanically mixed at the site prior to placement. All ingredients are to be thoroughly intermingled during mixing, and all aggregate particles are to be completely coated with cement paste.

  Note: Transporting or use of concrete in non-mixing trucks or trailers ("buggies") is not permitted.

- **Installation**

  All new concrete shall be installed within thirty (30) calendar days of removal. All concrete construction shall conform to existing finishes. Thickness shall be 4" minimum and 6" maximum. Temporary "cut-back" asphalt shall be placed in sidewalks and other pedestrian traffic areas, until the final restored concrete can be placed.

Restored concrete surfaces shall be installed per County of Sacramento Standard Construction Specifications Plan 4-30 and Section 27.

Doweling and restored concrete surfaces shall comply with County of Sacramento Specifications as required.

- **Saw-cutting**

  Double saw cutting is required for all locations in the concrete. An initial construction saw-cut is required to facilitate the locating and excavating of existing water distribution facilities or other utilities and to permit the installation of the proposed facilities. After facility installation, backfill and compaction, a second final saw-cut 6" beyond the excavation is required immediately prior to restoration of the surface. Saw cutting to the nearest expansion or control joint is required if within 18" of a proposed facility or at the direction of the District. Saw cut shall be for full depth of the slab. Edges remaining after removal shall be square, uniform, and with no chips or spalling.

- **Placement**

  Replaced portions of concrete shall be finished to match existing surfaces.

- **Vandalism**

  Contractor shall take all reasonable precautions to protect wet concrete from damage or vandalism.

21. Landscape Restoration

Landscape restoration work shall be performed by the Contractor. If the Contractor is unable to satisfactorily restore the landscaping, a Landscape Contractor shall be retained. The Landscape Contractor to be used shall be provided in Exhibit A, List of Subcontractors if work exceeds one percent (1.00%) of total amount of bid.

Provide all labor, materials, services and equipment necessary to complete all landscape restoration work, including but not limited to the following:

1. Sod removal and replacement
2. Ground Cover removal and replacement

3. Shrub removal and replacement
4. Pruning
5. Grading
6. Mulching – Shredded Bark
7. Weed Retardant Fabric replacement
8. Cleanup
9. Restoration of Sprinkler Systems

♦ **Sod Removal and Replacement**

All lawn areas disturbed by the work shall be re-sod according to the following procedures: The grass shall be cut to a height of 2". The sod shall be removed with an appropriate tool, cutting a minimum of 1 1/2" below the surface of the soil. The sod shall be stockpiled and maintained in a healthy condition, and shall be replaced within three (3) days of the time it was cut.

If the sod removed is not healthy when it is to be relayed, it shall be replaced with new sod. New sod shall be installed when and where required, within fourteen (14) days of the completion of the trench or excavation. It shall be the responsibility of the Contractor to notify the property occupant in writing to water the newly replaced sod on a regular basis as required.

Areas to be planted shall be cultivated until the soil is mixed thoroughly and in a loose and fine textured condition. The top 2” shall be cleared of all stones, stumps, dirt clods, debris, etcetera, larger than ¼” in diameter, that are brought to the surface as a result of cultivation.

♦ **Ground Cover Removal and Replacement**

Ground cover disturbance shall be kept to a minimum and removal confined to an immediate area of required excavation. Replacement shall be with healthy new plant material of a like variety, installed in conformance with the recommendations of the Sunset Western Garden Book.

New ground cover shall be installed where required within fourteen (14) days of completion of the trench or excavation. It shall be the Contractor’s responsibility to notify the property occupant in writing to water the newly replaced ground on a regular basis as required.

- **Shrub Removal and Replacement**

  Any shrubbery, which must be removed, as directed by the District, shall be removed by the Contractor so as not to damage it. If any damage is done to the shrubbery, the Contractor at no cost to the District or property owner shall replace it. Replacement shrubs shall be 5-gallon minimum size and shall match the size of the removed shrub.

- **Pruning**

  Pruning of any shrubbery or trees shall be conducted under the direction of the District and follow sound horticultural practice. Pruning shall be limited to the minimum necessary to provide access to work, to remove injured twigs and branches and to compensate for loss of roots during a transplant.

- **Grading**

  Planting beds shall be graded to drain with uniform levels or slopes between finished elevations and existing elevations.

  Remove debris, roots, stones, etcetera, in excess of 2” in size.

  Fine grade all planting areas to a smooth, loose, and a uniform surface.

- **Mulching**

  The Contractor shall replace mulch that has been disturbed by the operation. Minimum depth of mulch will be 2”.

- **Weed Retardant Fabric Replacement**

  The Contractor shall replace fabric used to retard weed growth that has been disturbed by the operation. The replaced fabric shall be of similar quality and character of the existing fabric disturbed.

- **Cleanup**

  Any excess soil, imported fill, prunes, or other debris shall be removed daily from the work zone and disposed of in a lawful manner at the Contractor’s expense.

♦ **Guarantee and Replacement**

All plant material and sod installed, new or reused, under this Contract shall be guaranteed for thirty (30) days from time of installation against any and all poor, inadequate, or inferior materials and/or workmanship or improper maintenance, as determined by the District.

22. Maintaining Traffic, Public Convenience and Safety

The Contractor shall be responsible for the safety of traffic within the Project limits and on the approaches to the Project. The Contractor shall be responsible for maintaining local property access and access to the existing public cross-streets within the limits of this contract. The Contractor shall provide adequate steel plating to protect driveways and provide access to properties.

Temporary paving shall be used when trenching occurs across a driveway. The Contractor shall make a reasonable effort to reduce durations of the driveway closures by scheduling and coordinating work accordingly.

The Contractor shall provide 72 hour advance notification to the occupants of property to which the existing access or frontage parking will be closed for a period of time exceeding two (2) hours. Notification will be by written notice placed on or near the building entrance or the property access point to be closed. The Contractor shall be responsible for making access available into the existing driveways at any time during their work day to emergency type vehicles such as fire, ambulance, police, and etcetera.

Personal vehicles of the Contractor's employees shall not be parked within the right of way.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if in the opinion of the District Inspector, public traffic and convenience will be better served and the work expedited. These deviations shall not be adopted by the Contractor until the City and District have approved them in writing.

Pedestrian access facilities shall be provided through construction areas within the right-of-way as specified herein. Access shall be American’s with Disabilities Act (ADA) compliant. Pedestrian walkways shall be provided with surfacing of asphalt concrete, Portland cement concrete or timber. Surface shall be skid resistant and free of irregularities.

Paved pedestrian access to sidewalks and signals and signal push buttons shall be maintained during all stages of construction. Walkways shall be maintained in good condition by the Contractor. Walkways shall be kept clear of obstructions.

Full compensation for providing said pedestrian facilities shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

Any closure or detour of pedestrian access for Contractor's convenience shall be approved in writing by the City and District prior to scheduling work in the area under question. Any request for temporary closure or detour of pedestrians shall be made in writing and include plans and information showing requested duration, days of the week, routes, signing and safety measures. Approval or rejection of requests will be at the sole discretion of the City and District. Additional signing and safety measures for pedestrians approved as part of a pedestrian access modification shall be considered as included in the prices paid for the various contract items of work involved and no additional payment shall be made therefor.

23. Public Notification

The District will be responsible for notifying the public, local residents, local businesses, local public, Regional Transit Route Scheduling Unit, local law enforcement agencies, local fire districts, local public and private ambulance and paramedic service providers, local utility companies and any other persons or agencies affected by this Project. The District will be responsible for coordinating with the Contractor to ensure the proper timing and information is provided to the public.

24. Construction Layout and Staking

The District will provide construction staking for the water line as described below:

- Offset stakes will be provided at 50 foot intervals along waterline, grade breaks and two stakes will be placed at each waterline angle point along the route. Offset stakes will provide centerline of the water main and cut elevation to flowline of pipe.
- Staking Waterline Tees or Service Laterals
- Staking Water Meters or other waterline appurtenances

<u>The following staking items will not be provided by the District:</u>

- Staking Saw Cut Line
- Staking Construction Area Signs

- Traffic control except as noted below

Contractor Responsibilities:

- Discuss scheduling of staking needs for Contractor operations and time estimates of staking operations with the District Inspector. Staking needs shall be included on the biweekly schedule updates.

- Request construction stakes a minimum of three (3) working days in advance of starting an operation that will use the stakes (i.e. if stakes are to be used Thursday, the staking request shall be submitted on Monday). Weekends and holidays are not considered working days.

- Submit suitable requests for construction stakes, ensuring that the requested staking area is ready for stakes and that the stakes will begin to be used within five (5) days of staking.

- Coordinate construction operations so that areas to receive stakes are relatively clear of construction equipment activity, in order that stakes can be set in safe and expeditious manner to the satisfaction of the District Inspector.

- Contractor shall provide a safe working environment for the survey crews.

- Contractor shall establish priorities for requested construction stakes and note the priorities on the staking request.

- Contractor shall preserve all construction stakes. Replacement of stakes will be completed at the expense of the Contractor.

- The Contractor will coordinate with the District Inspector regarding the location and placement of Fire Hydrants, Valves, Tees, Crosses, Water Services, ARVs and related appurtenances. The final location of these facilities will require approval from the District Inspector.

If the area or facility is not prepared satisfactorily for the stakes, as determined by the District Inspector, the staking request will be voided by the District Inspector and the Contractor shall submit a new request for the stakes when the area or facility has been properly prepared. If survey crews have been mobilized to an area that is not ready for stakes, the District will provide written documentation and charge the Contractor with restaking charges for the survey crew's time.

Full compensation for coordinating construction layout and staking with the District Inspector and the District's staking agents shall be considered as included in the various contract items of work and no additional payment will be allowed therefor.

END OF SPECIAL PROVISIONS

HIGHLAND AVENUE AND ROSA VISTA AVENUE WATER MAIN REPLACEMENT PROJECT C15-133

The following Construction Details pertain to Citrus Heights Water District's Highland Avenue and Rosa Vista Avenue Water Main Replacement Project C15-133:

Detail HP_001	Hydrostatic Pressure Testing
Detail TB_001	Concrete Thrust Block Details
Detail FH_612	Fire Hydrant – 6" Connection (Street Side)
Detail FH_683	Fire Hydrant Access Pad
Detail TREN_712	4" Through 12" Trench Detail – Shoulder – City of Citrus Heights
Detail TREN_713CH	4" Through 12" Trench Detail – Pavement – City of Citrus Heights
Detail TREN_721	Service Line Trench Detail – Native
Detail TREN_723CH	Service Line Trench Detail – Pavement – City of Citrus Heights
Detail TREN_782	Sewer/Storm Crossing Detail
Detail TREN_783	Sewer/Storm Parallel Detail
Detail VB_811	Water Main Valve Box – Street/Driveway
Detail WS_102PE	1" Polyethylene Water Service - 1" Water Meter
Detail WS_108PE	1" Polyethylene Water Service
Detail WS_290	2" Construction Water Service
Detail SWPPP_100	Storm Drain Inlet Protection – Filter Bag Installation
Detail SWPPP_101	Storm Drain Inlet Protection – Curb Inlet Installation
Detail SWPPP_102	Storm Drain Inlet Protection – Sediment Trap
Detail SWPPP_103	Storm Drain Inlet Protection – Area Inlet Installation
Detail SWPPP_110	Temporary Fiber Roll
Detail SWPPP_111	Temporary Cover Stockpile Installation
Detail SWPPP_115	Temporary Silt Fence
Detail SWPPP_120	Temporary Construction Entrance
Detail SWPPP_125	Storm Drain Inlet Protection – Concrete Washout Facility – Sign

MAKEUP WATER ALLOWANCES (GALLONS PER HOUR PER 1000')

PVC	
SIZE OF PIPE	LEAKAGE ALLOWANCE
4"	0.36
6"	0.54
8"	0.72
10"	0.89
12"	1.02

DIP	
SIZE OF PIPE	LEAKAGE ALLOWANCE
4"	0.36
6"	0.54
8"	0.72
10"	0.89
12"	1.07
14"	1.25
16"	1.43
18"	1.61
24"	2.15

NOTES:

1. THE CONTRACTOR SHALL PRESSURIZE ALL NEW FACILITIES INDEPENDENT OF THE EXISTING SYSTEM. CITRUS HEIGHTS WATER DISTRICT ASSUMES NO LIABILITY FOR THE SAFETY OF CONTRACTOR PERSONNEL.
2. THE CONTRACTOR IS RESPONSIBLE FOR A SUCCESSFUL PRE-TEST OF THE FACILITIES.
3. THE DISTRICT INSPECTOR SHALL WITNESS THE HYDROSTATIC PRESSURE TEST UPON REQUEST OF THE CONTRACTOR.
4. PRESSURE SHALL BE REDUCED TO 60 PSI MAXIMUM AND RAISED TO TEST PRESSURE IN THE PRESENCE OF THE DISTRICT INSPECTOR.
5. HYDROSTATIC TEST PRESSURE SHALL BE 150 PSI. A DROP IN PRESSURE OF GREATER THAN 5 PSI AND/OR EXCEEDING THE MAKEUP WATER ALLOWANCE SHALL VOID THE TEST.
6. THE HYDROSTATIC PRESSURE TEST SHALL BE 2-HOURS IN DURATION.

MAKEUP WATER ALLOWANCE TABLE REFERENCES:
PVC: ANSI/AWWA C605-05, PG 24, TABLE 2.
DIP: ANSI/ AWWA C600-05, PG 27, TABLE 5A.

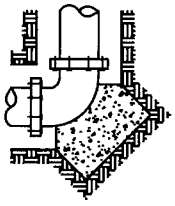
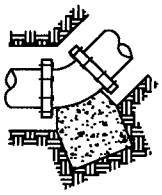
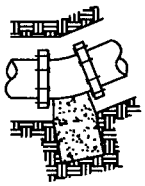
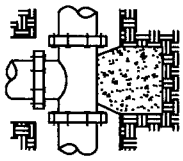
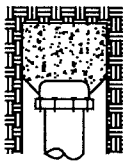
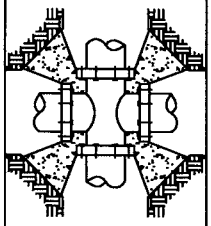
CITRUS HEIGHTS WATER DISTRICT

HYDROSTATIC PRESSURE TESTING

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: HP_001.DWG
PAGE: HP_001

MINIMUM REQUIRED BEARING AREA - TOTAL SQUARE FEET							
TYPE OF FITTING		90° BEND	45° BEND	11 1/4° OR 22 1/2° BEND	TEE OR DEAD END	END OF LINE	CROSS
TYPICAL INSTALLATION							
SIZE OF PIPE	4″	4	2	1	2	3	4
	6″	4	2	1	3	3	4
	8″	7	4	2	5	5	7
	10″	12	6	3	8	8	12
	12″	16	10	5	12	11	16

NOTES:

1. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF TYPE II SIX-SACK PORTLAND CEMENT.
2. AREAS GIVEN ARE FOR CL235 DR 18 AWWA C900-07 PVC, CL305 DR 14 AWWA C900-07 PVC, AND PC350 DIP AT TEST PRESSURE OF 150 P.S.I. IN SOIL WITH MINIMUM 2,000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES REQUIRE ADJUSTMENT OF BEARING AREAS ACCORDINGLY.
3. CONCRETE THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED SOIL.
4. PIPE, JOINTS, AND BOLTS SHALL BE KEPT CLEAR OF CEMENTITIOUS MATERIALS.
5. TRANSPORTING OR USE OF CONCRETE FOR THRUST BLOCKS IN NON-MIXING TRUCKS OR TRAILERS (BUGGIES) IS NOT PERMITTED.
6. THRUST BLOCKS ARE REQUIRED AT EVERY BEND, TEE, END, AND CROSS ON PIPELINES AND AS DEEMED NECESSARY BY THE DISTRICT INSPECTOR.
7. KEY-IN FROM THE VERTICAL WALL OF TRENCH SHALL BE A MINIMUM OF 8" INTO UNDISTURBED SOIL AND SHALL BE INSPECTED BY CHWD PRIOR TO POURING CONCRETE.
8. CONCRETE THRUST BLOCKS SHALL BE ALLOWED TO CURE FOR A MINIMUM OF 24-HOURS PRIOR TO ANY PRESSURE LOADING OR TRENCH BACKFILLING.

CITRUS HEIGHTS WATER DISTRICT

CONCRETE THRUST BLOCK DETAILS

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013

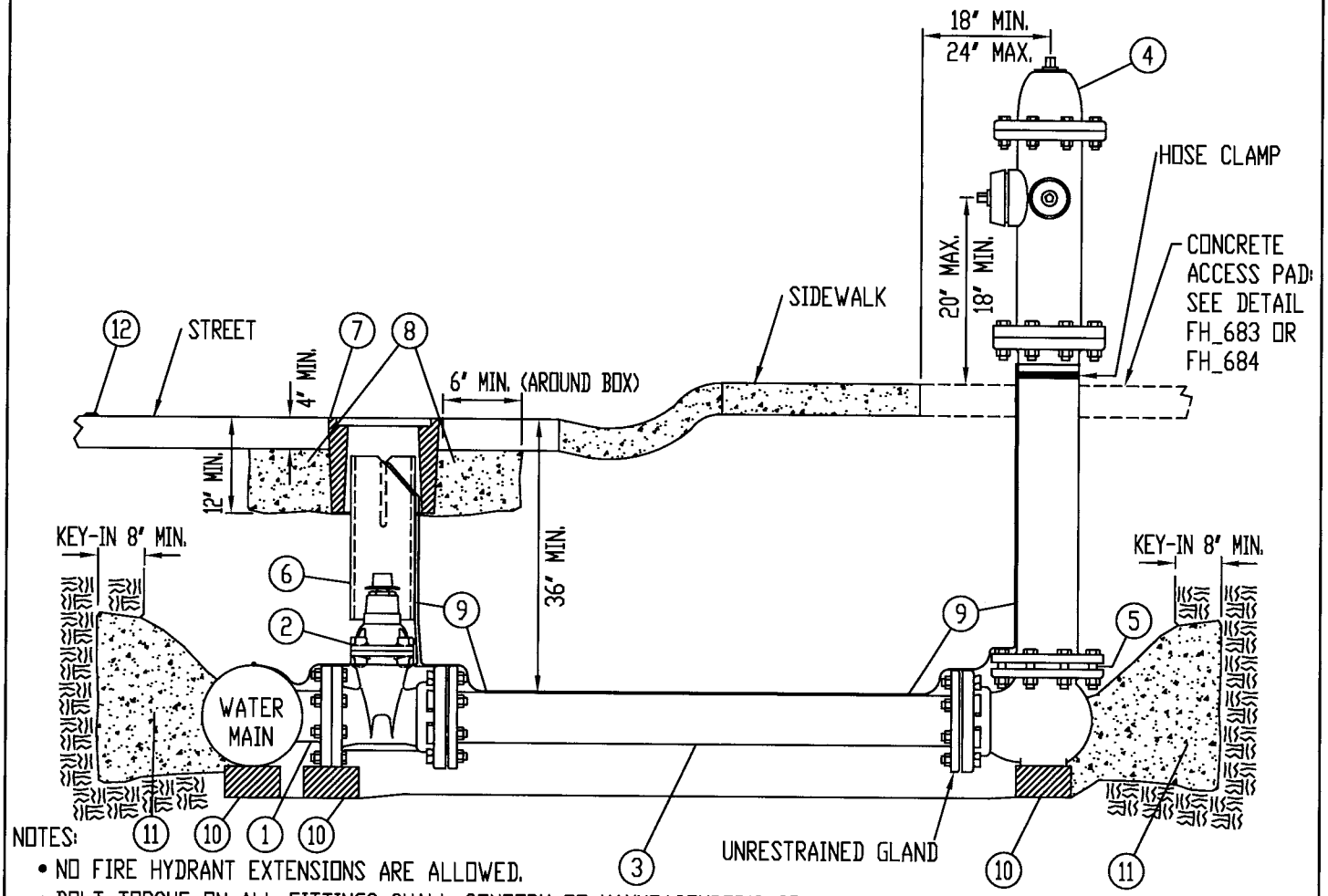
REVISED:

SCALE: N.T.S.

DESIGN: P.A.D.

CAD FILE: TB_001.DWG

PAGE: TB_001



NOTES:

- NO FIRE HYDRANT EXTENSIONS ARE ALLOWED.
- BOLT TORQUE ON ALL FITTINGS SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.
- AREA AROUND FIRE HYDRANT SHALL BE COMPACTED TO 90% MINIMUM.
- PAINT HYDRANT BURY USING A MANUFACTURER'S RECOMMENDED PRIMER, FINISH WITH RUSTOLEUM GLOSS WHITE, TWO COATS MINIMUM. PRIOR TO PAINTING, CLEAN ALL SURFACES WITH SOAP AND WATER USING AN ABRASIVE PAD.

1	TEE - DUCTILE IRON - FLANGED OUTLET	7	VALVE BOX/LID - MARKED "WATER", OLDCASTLE PRECAST NO. G04 BOX, G04C LID
2	6" GATE VALVE - RESILIENT WEDGE - FLANGED TO TEE x MECHANICAL JOINT	8	CONCRETE ENCASEMENT AROUND VALVE BOX - TYPE II SIX-SACK PORTLAND CEMENT - SEE DETAIL VB_811
3	6" DUCTILE IRON PIPE - PC350	9	#10 INSULATED COPPER LOCATOR WIRE
4	STEAMER FIRE HYDRANT - MUELLER A-423 OR AMERICAN DARLING B84B - MINIMUM 48" BURY, MECHANICAL JOINT INLET. SHALL BE FACTORY WHITE.	10	CONCRETE BRICK - 2 1/4" x 3 3/4" x 7 1/2"
		11	CONCRETE THRUST BLOCK - SEE DETAIL TB_001
5	BRASS PLUGS SHALL BE INSTALLED IN DRAIN HOLES IN SHOE.	12	BLUE REFLECTIVE MARKER - INSTALLED PER SACRAMENTO METROPOLITAN FIRE DISTRICT SPECIFICATIONS
6	8" RISER - SDR35 ONLY, CONTINUOUS SECTION		

CITRUS HEIGHTS WATER DISTRICT

FIRE HYDRANT - 6" CONNECTION (STREET SIDE)

CITRUS HEIGHTS WATER DISTRICT

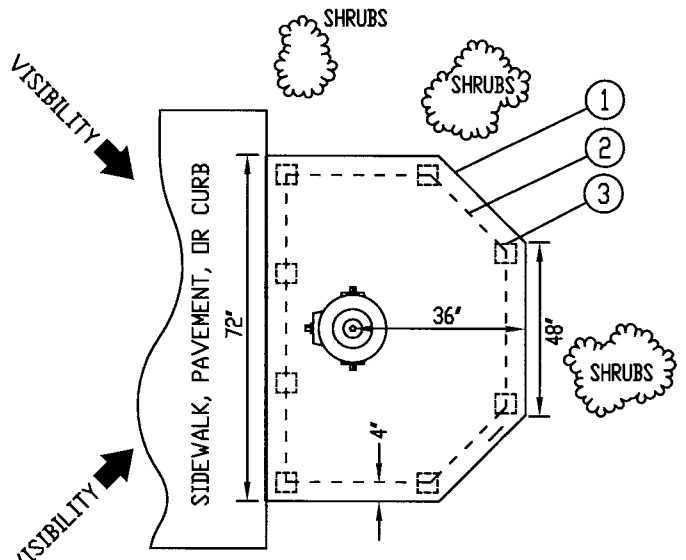
APPROVED BY: Robert A. Churchill
CITRUS HEIGHTS WATER DISTRICT
DATE: 5/8/13

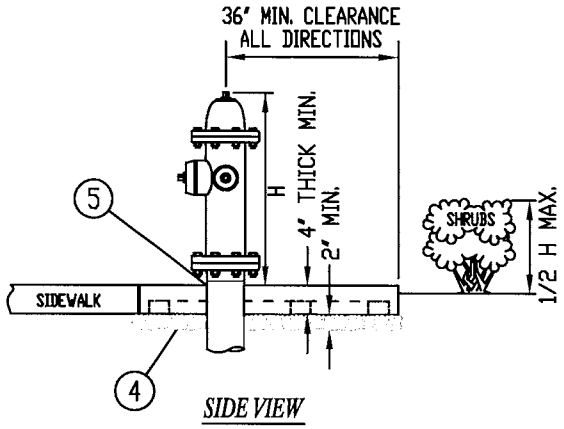
DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: FH_612.DWG

DETAIL FOR CONSTRUCTION IN:
SACRAMENTO METRO FIRE DISTRICT

PAGE: FH_612

TOP VIEW





SIDE VIEW

NOTES:

- CONCRETE PAD TO BE POURED INDEPENDENT OF OTHER CONCRETE WORK.
- CONTACT CITRUS HEIGHTS WATER DISTRICT FOR REBAR INSPECTION PRIOR TO POURING CONCRETE. (916) 725-6873
- MATERIAL BELOW AGGREGATE BASE SHALL BE COMPACTED TO 90% MINIMUM.
- REINFORCED CONCRETE PAD SHALL BE FINISHED WITH AN EDGING TOOL AROUND THE ENTIRE PERIMETER AND BROOMED AT RIGHT ANGLES TO THE DIRECTION OF TRAVEL.
- PAINT FIRE HYDRANT USING A RUSTOLEUM RECOMMENDED PRIMER, FINISH WITH RUSTOLEUM GLOSS WHITE, TWO COATS MINIMUM. PRIOR TO PAINTING, CLEAN ALL SURFACES WITH SOAP AND WATER USING AN ABRASIVE PAD.

1	REINFORCED CONCRETE PAD - TYPE II SIX-SACK PORTLAND CEMENT	4	3/4" CLASS 2 AGGREGATE BASE - 2" MINIMUM, MECHANICALLY COMPACTED TO 90%
2	3/8" (#3) REBAR - 2" INSIDE PERIMETER		
3	CONCRETE DOBIE w/ WIRE	5	ASPHALT SATURATED ORGANIC FELT (ROOFING PAPER) - ASTM 30, 2 LAYERS AROUND FIRE HYDRANT

CITRUS HEIGHTS WATER DISTRICT

FIRE HYDRANT ACCESS PAD

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013

REVISED:

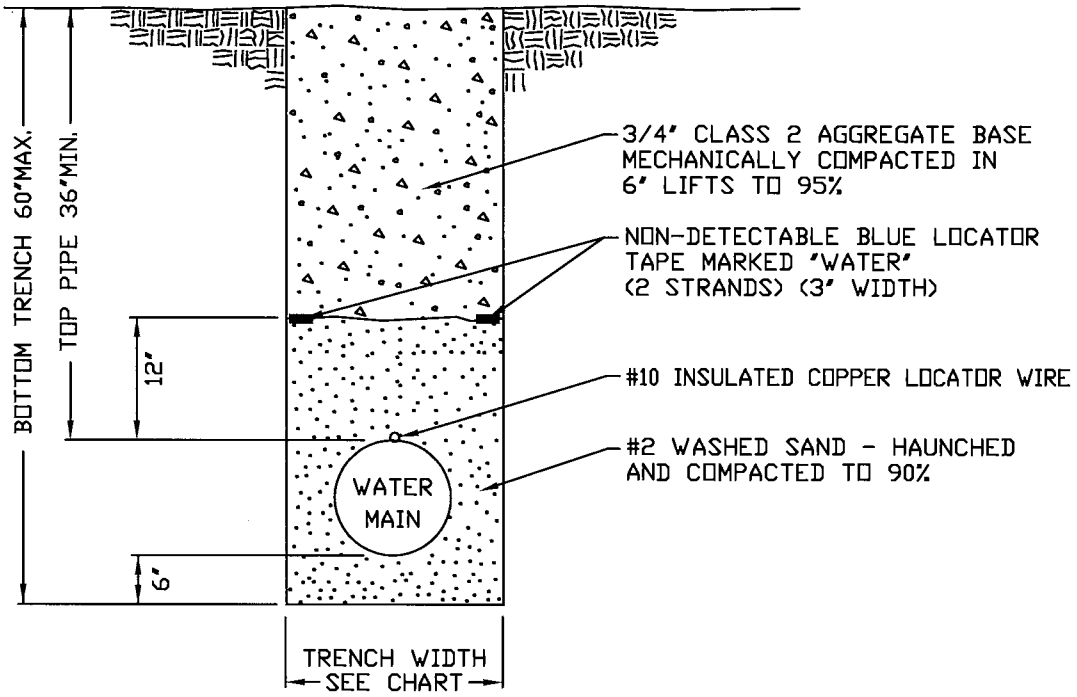
SCALE: N.T.S.

DESIGN: P.A.D.

CAD FILE: FH_683.DWG

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FH_683



MAIN DIAMETER	MINIMUM TRENCH WIDTH
4"	18"
6"	24"
8"	24"
10"	30"
12"	30"

CITRUS HEIGHTS WATER DISTRICT

4" THROUGH 12" TRENCH DETAIL - SHOULDER

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013

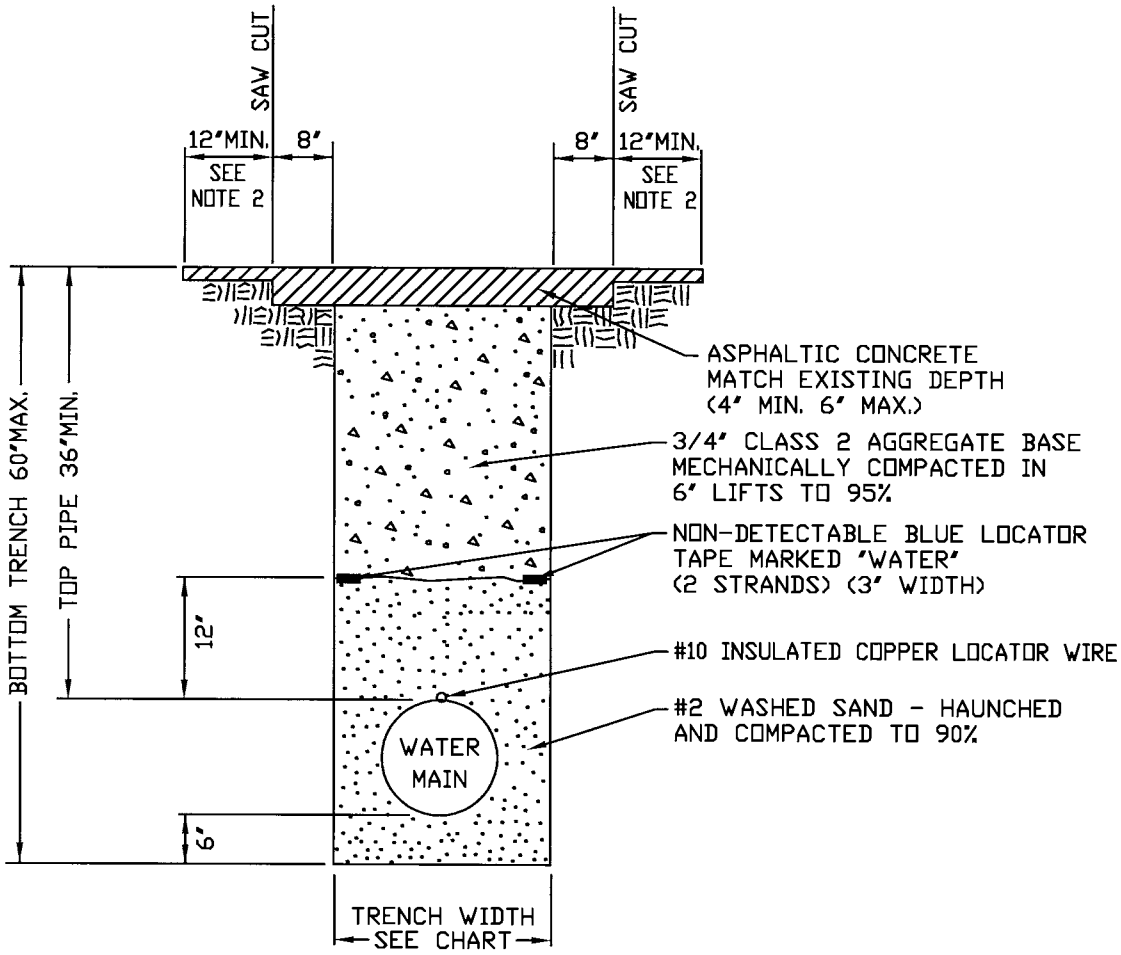
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SCALE: N.T.S.

DESIGN: P.A.D.

CAD FILE: TREN_712.DWG

PAGE: TREN_712



NOTES:

1. NO PAVEMENT CUTS OR TRENCHES ARE ALLOWED IN PAVEMENT LESS THAN THREE YEARS OLD, UNLESS APPROVED BY THE CITY OF CITRUS HEIGHTS.
2. 1 1/2" DEEP GRINDING AND PAVING. GRIND TO LIP OF GUTTER, LANE LINE, OR CENTER OF TRAFFIC LANE, BUT 12" MINIMUM WIDTH.
3. SEAL COAT TREATMENT SHALL BE APPLIED AT LOCATIONS SPECIFIED, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF CITRUS HEIGHTS.

MAIN DIAMETER	MINIMUM TRENCH WIDTH
4"	18"
6"	24"
8"	24"
10"	30"
12"	30"

CITRUS HEIGHTS WATER DISTRICT

4" THROUGH 12" TRENCH DETAIL - PAVEMENT

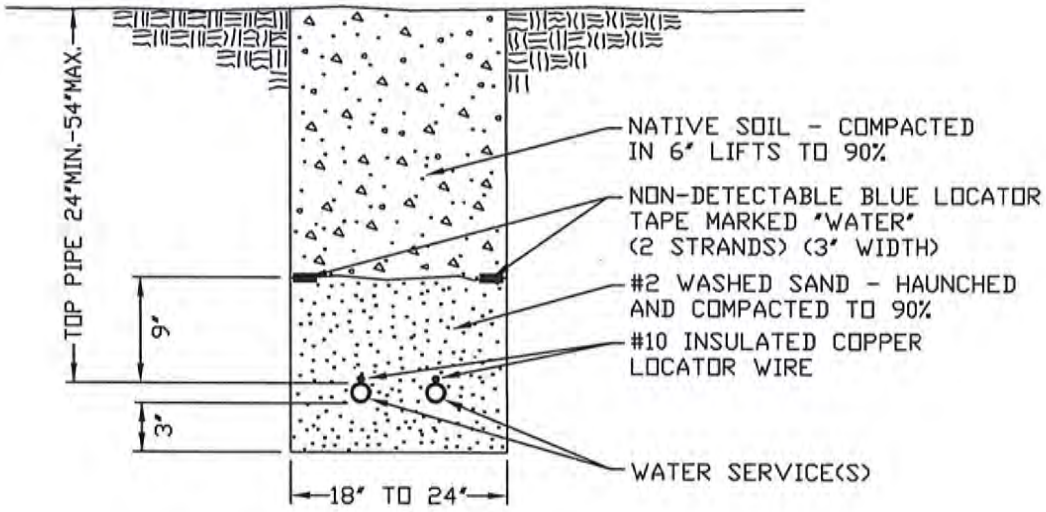
CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

FOR CONSTRUCTION IN THE CITY OF CITRUS HEIGHTS

DRAWN: 8 MAY 2013
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CAD FILE: TREN_713CH.DWG
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CITRUS HEIGHTS WATER DISTRICT

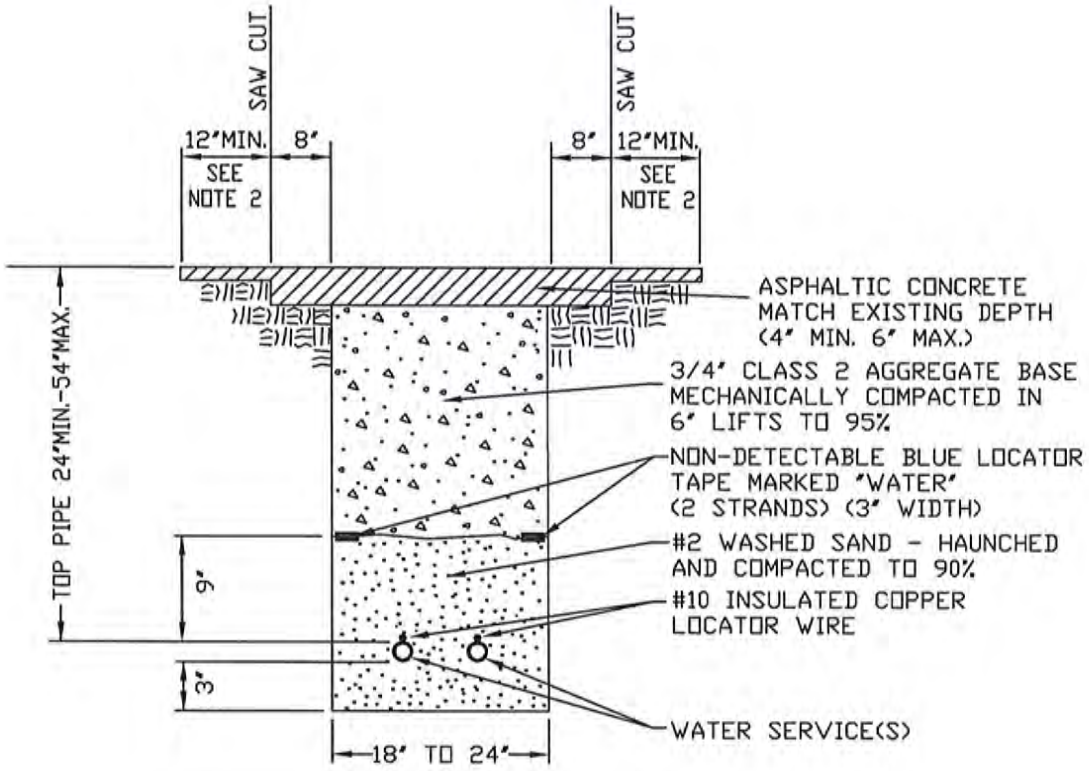
SERVICE LINE TRENCH DETAIL - NATIVE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Melissa Pieri DATE: 4/19/17

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 19 APRIL 2017
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: TREN_721.DWG
PAGE: TREN_721



NOTES:

1. NO PAVEMENT CUTS OR TRENCHES ARE ALLOWED IN PAVEMENT LESS THAN THREE YEARS OLD, UNLESS APPROVED BY THE CITY OF CITRUS HEIGHTS.
2. 1 1/2" DEEP GRINDING AND PAVING. GRIND TO LIP OF GUTTER, LANE LINE, OR CENTER OF TRAFFIC LANE, BUT 12" MINIMUM WIDTH.
3. SLURRY SEAL COAT TREATMENT SHALL BE APPLIED AT LOCATIONS SPECIFIED, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF CITRUS HEIGHTS.

CITRUS HEIGHTS WATER DISTRICT

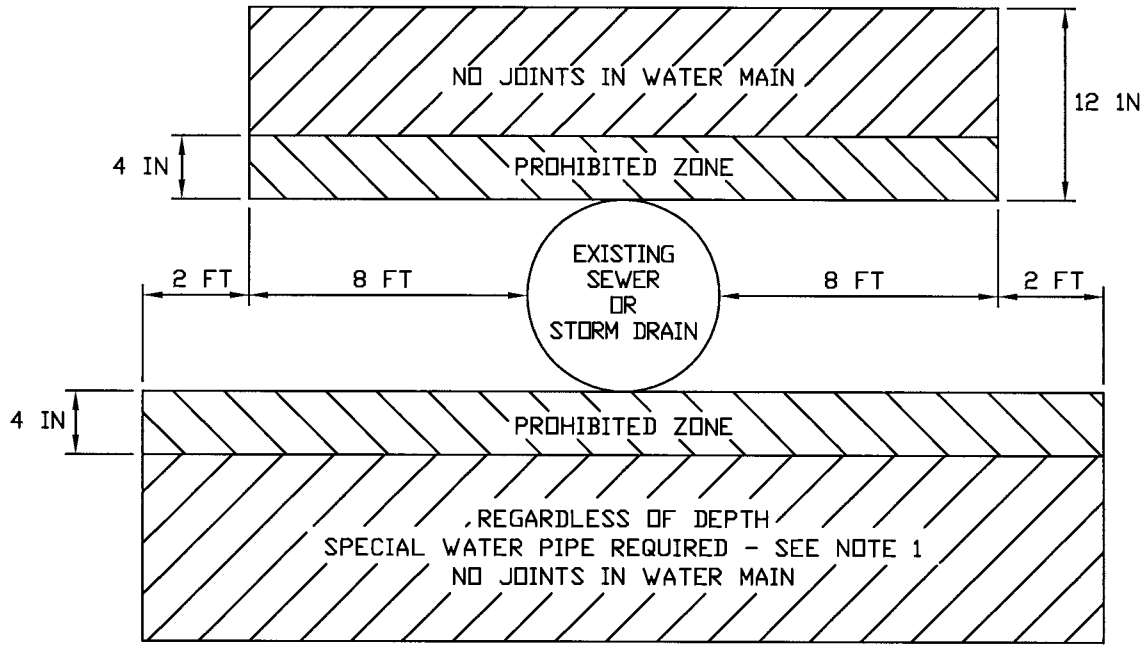
SERVICE LINE TRENCH DETAIL - PAVEMENT

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Melissa Pieri DATE: 4/19/17
CITRUS HEIGHTS WATER DISTRICT

FOR CONSTRUCTION IN THE CITY OF CITRUS HEIGHTS

DRAWN:	19 APRIL 2017
REVISED:	
SCALE:	N.T.S.
DESIGN:	P.A.D.
CAD FILE:	TREN_723CH.DWG
PAGE:	TREN_723CH



NOTE:

1. AN 18 FOOT LENGTH OF PC350 DUCTILE IRON PIPE (DIP) OR A 20 FOOT LENGTH OF CL305 DR 14 AWWA C900-07 POLYVINYLCHLORIDE (PVC) WATER MAIN TO BE CENTERED BELOW SEWER OR STORM DRAIN CROSSINGS.

CITRUS HEIGHTS WATER DISTRICT

SEWER/STORM CROSSING DETAIL

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013

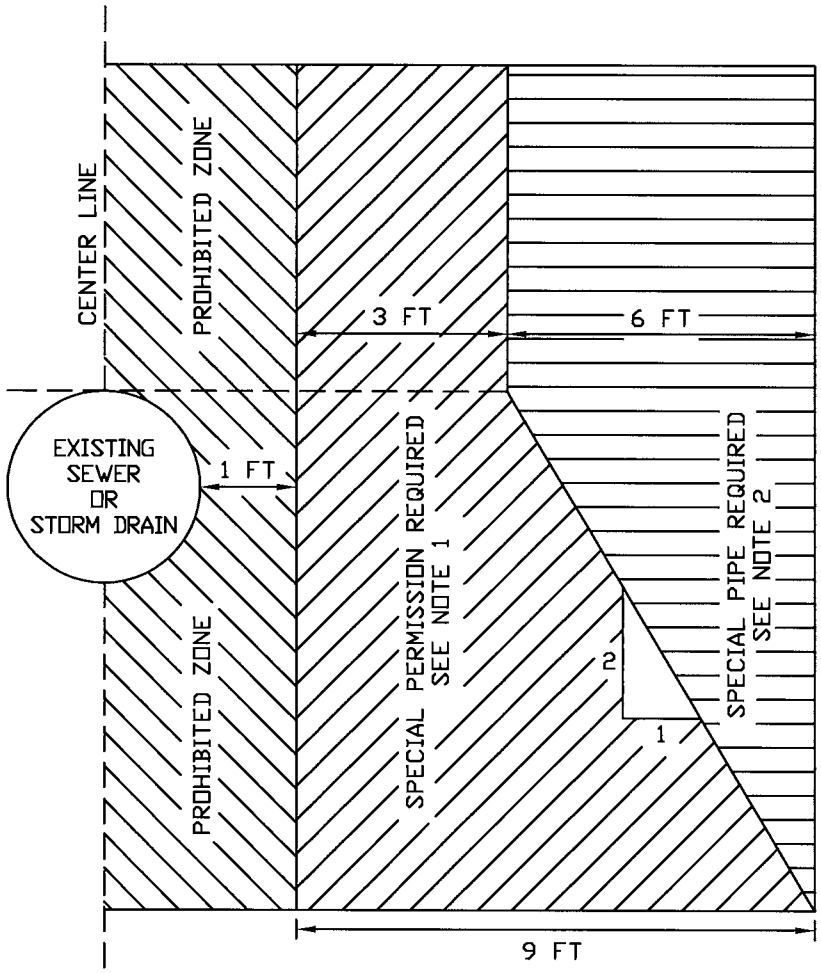
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SCALE: N.T.S.

DESIGN: P.A.D.

CAD FILE: TREN_782.DWG

PAGE: TREN_782



NOTES:

1. NO WATER MAINS PARALLEL TO SEWERS OR STORM DRAINS SHALL BE CONSTRUCTED IN THIS ZONE WITHOUT PRIOR WRITTEN APPROVAL FROM THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH.

2. WATER MAINS IN THIS ZONE SHALL BE CONSTRUCTED OF PC350 DUCTILE IRON PIPE (DIP) OR CL305 DR 14 AWWA C900-07 POLYVINYLCHLORIDE (PVC).

CITRUS HEIGHTS WATER DISTRICT

SEWER/STORM PARALLEL DETAIL

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013

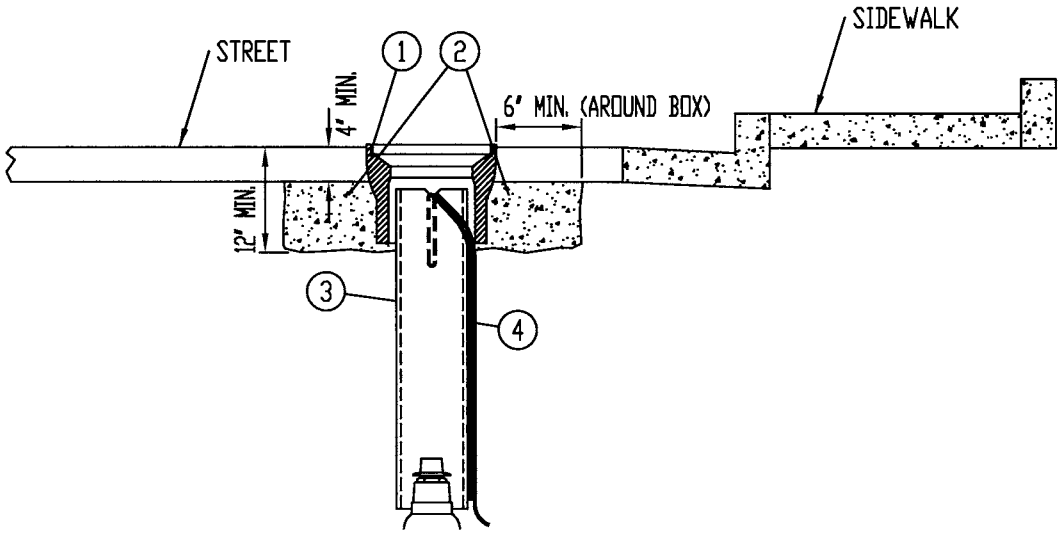
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SCALE: N.T.S.

DESIGN: P.A.D.

CAD FILE: TREN_783.DWG

PAGE: TREN_783



NOTES:

- RISER SHALL BE PLUMB.
- VALVE OPERATING NUT SHALL BE CENTERED IN THE RISER AND FULLY ACCESSIBLE.
- MATERIAL BELOW CONCRETE ENCASEMENT SHALL BE COMPACTED TO 95% MINIMUM.
- CONCRETE ENCASEMENT SHALL BE ALLOWED TO CURE 24 HOURS MINIMUM PRIOR TO FINISH PAVING.
- TRIANGULAR LID SHALL POINT IN THE DIRECTION OF THE MAIN WHICH IS ISOLATED BY THE VALVE.

1	VALVE BOX/LID - MARKED "WATER", OLDCASTLE PRECAST NO. G04 BOX, G04C LID
2	CONCRETE ENCASEMENT AROUND VALVE BOX - TYPE II SIX-SACK PORTLAND CEMENT
3	8" RISER - SDR35 ONLY, CONTINUOUS SECTION
4	#10 INSULATED COPPER LOCATOR WIRE

CITRUS HEIGHTS WATER DISTRICT

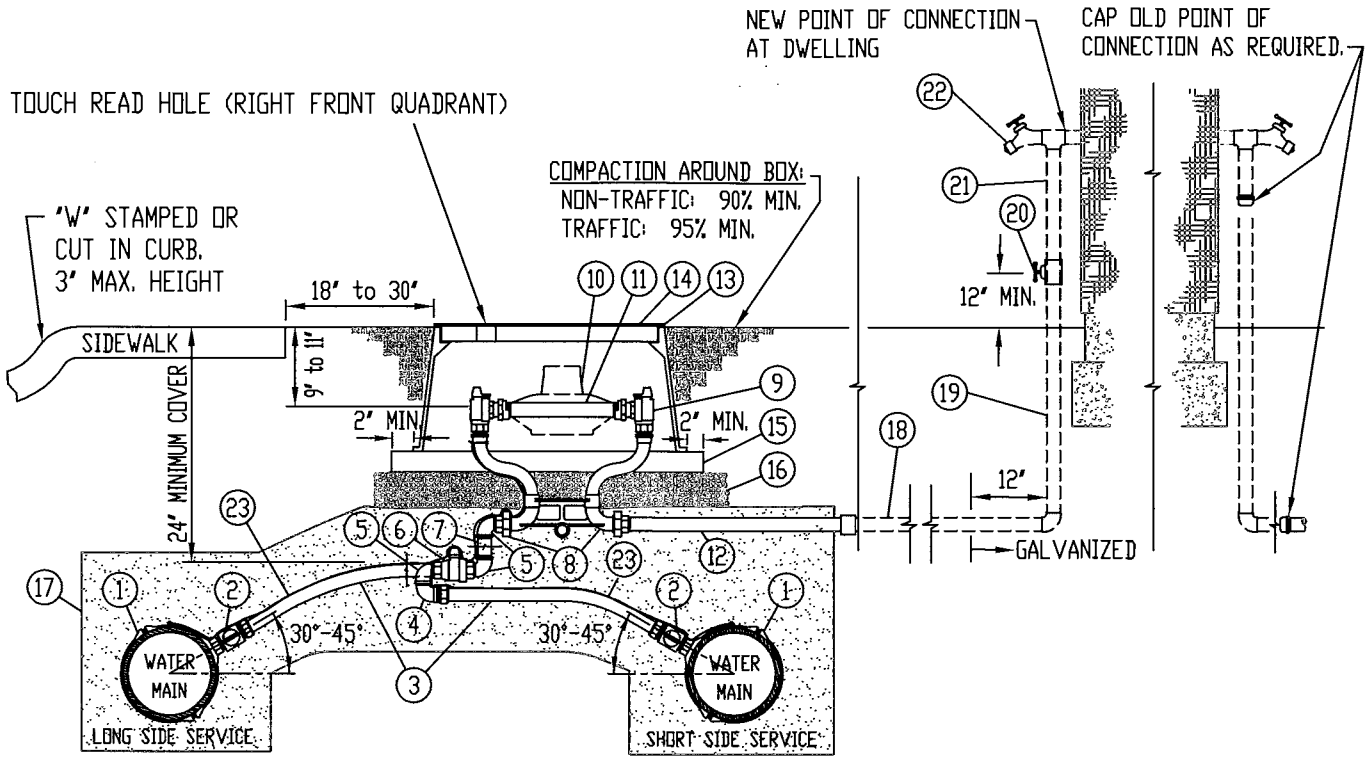
WATER MAIN VALVE BOX - STREET/DRIVEWAY

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: VB_811.DWG
PAGE: VB_811



CARSON 1220-4B "T" TYPE LID:
SHALL INCLUDE STRAIGHT TYPE HEXAGON LOCK-DOWN BOLT (1) AND TOUCH READ HOLE. SHALL BE MARKED "WATER"

CHRISTY FL30T RECESSED LID:
SHALL INCLUDE STRAIGHT TYPE PENTAHEAD LOCK-DOWN BOLTS (2) AND TOUCH READ HOLE. SHALL BE MARKED "WATER"

METER YOKE:
FORD, JONES, MUELLER, McDONALD

1	1" BRONZE SADDLE - IPT	10	1" WATER METER (BY DISTRICT)		
2	1" CORPORATION STOP - FULL-PORT BALL, MIP x CTS COMP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	11	PVC METER IDLER - 1 1/4" x 10 3/4", SCH 80 (BY CONTRACTOR)		
		12	1" x 18" PVC NIPPLE - SCH 80 (BRASS IF BACKFLOW)		
3	1" POLYETHELENE TUBING - CTS ENDOPORE PE-4710 SDDR 9 (250 PSI) OR EQUAL			NON-TRAFFIC AREAS	TRAFFIC AREAS
		13	METER BOX	CARSON 1220-12	CHRISTY FL30TBOX12
4	1" BRASS STREET ELBOW - CTS COMP x MIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	14	LID	CARSON 1220-4B	CHRISTY FL30T
		15	2" x 6" PRESSURE TREATED DOUGLAS FIR SUPPORTS (2)		
5	1" BRASS STREET ELBOW	16	3/4" CLEAN CRUSHED ROCK		
6	1" VALVE - FULL-PORT BALL, FIP x FIP or CTS COMP x FIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	17	#2 WASHED SAND COMPACTED TO 90%		
		18	1 1/4" PVC SCH 40 w/ SCH 80 FITTINGS		
7	1" BRASS NIPPLE (AS NECESSARY TO ADJUST TO PROPER GRADE)	19	1 1/4" GALVANIZED PIPE		
		20	1 1/4" GATE VALVE		
8	1" DUAL PURPOSE CONNECTION	21	GALVANIZED PIPE AND FITTINGS - SIZE TO MATCH EXISTING		
9	1" COPPER/BRASS METER YOKE - 12" HEIGHT w/2 FULL PORT ANGLE BALL VALVES INCLUDING PADLOCK WINGS ON INLET AND OUTLET	22	HOSE BIB - SIZE TO MATCH EXISTING		
		23	#10 INSULATED COPPER LOCATING WIRE		

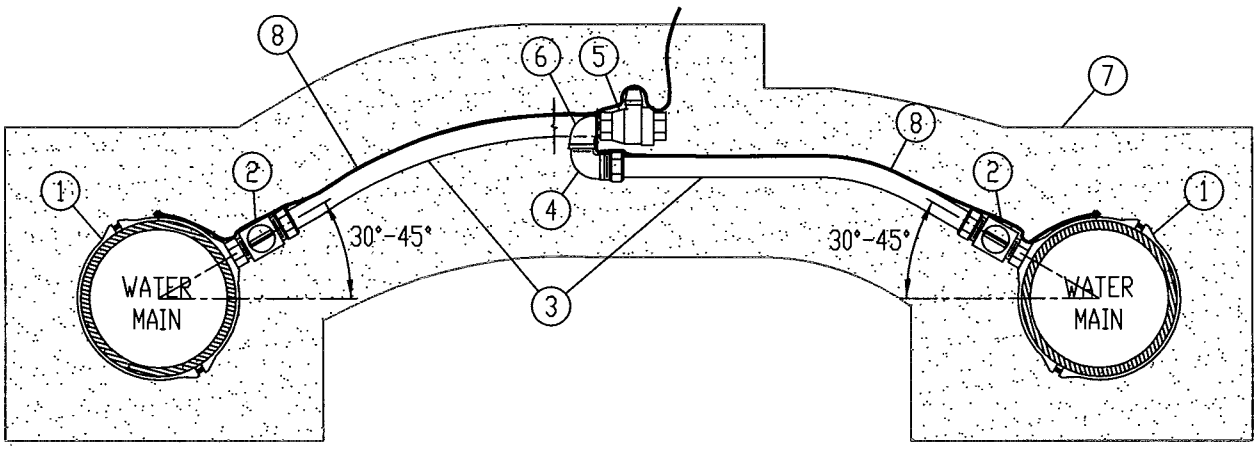
CITRUS HEIGHTS WATER DISTRICT

1" POLYETHYLENE WATER SERVICE - 1" WATER METER INCLUDING SERVICE LINE TO DWELLING

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 9/25/14
CITRUS HEIGHTS WATER DISTRICT

DRAWN: 25 SEP 2014
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: WS_102PE.DWG
PAGE: *WS_102PE*



1	1" BRONZE SADDLE - IPT	5	1" VALVE - FULL-PORT BALL, FIP x FIP or CTS x FIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)
2	1" CORPORATION STOP - FULL-PORT BALL, MIP x CTS COMP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	6	1" BRASS STREET ELBOW
3	1" POLYETHYLENE TUBING - CTS ENDOPORE PE-4710 SDDR 9 (250 PSI) OR EQUAL	7	#2 WASHED SAND COMPACTED TO 90%
4	1" BRASS STREET ELBOW - CTS COMP x MIP w/ STAINLESS STEEL INSERT (1" CTS INSERT-52)	8	#10 INSULATED COPPER LOCATOR WIRE (INSTALL INTO EXISTING METER BOX)

CITRUS HEIGHTS WATER DISTRICT

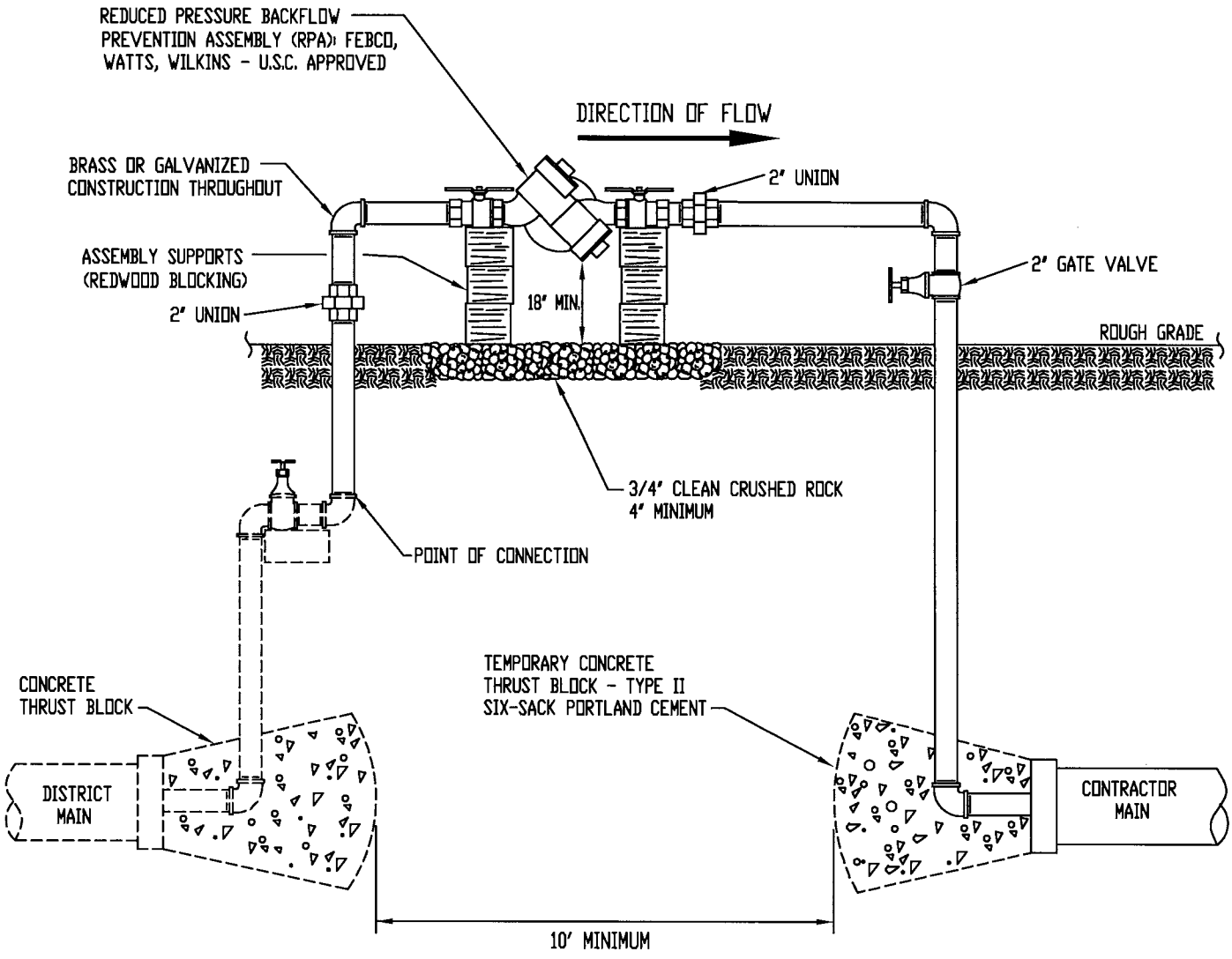
1" POLYETHYLENE WATER SERVICE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATE: 9/25/14

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 25 SEP 2014
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: WS_108PE.DWG
PAGE: WS_108PE



NOTES:

1. WATER SHALL ONLY BE DRAWN INTO THE CONTRACTOR'S MAIN THROUGH A DISTRICT-APPROVED RPA TYPE BACKFLOW PREVENTION ASSEMBLY. PRIOR TO CONNECTION TO THE DISTRICT WATER MAIN, THE ASSEMBLY MUST BE TESTED BY A SACRAMENTO COUNTY CERTIFIED BACKFLOW PREVENTION ASSEMBLY TESTER AND WRITTEN TEST RESULTS PROVIDED TO THE DISTRICT.
2. FINAL COMPONENTS NECESSARY FOR THE TIE-IN SHALL BE PRE-CHLORINATED AND FLUSHED IN THE PRESENCE OF A DISTRICT INSPECTOR.
3. ABOVE-GROUND CONSTRUCTION WATER SERVICE SHALL BE SAFE-GUARDED WITH BARRICADES.
4. THE CONTRACTOR MAY CONNECT TO A DISTRICT FIRE HYDRANT INSTEAD OF A DISTRICT WATER MAIN AT THE SOLE DISCRETION OF THE INSPECTOR.

CITRUS HEIGHTS WATER DISTRICT

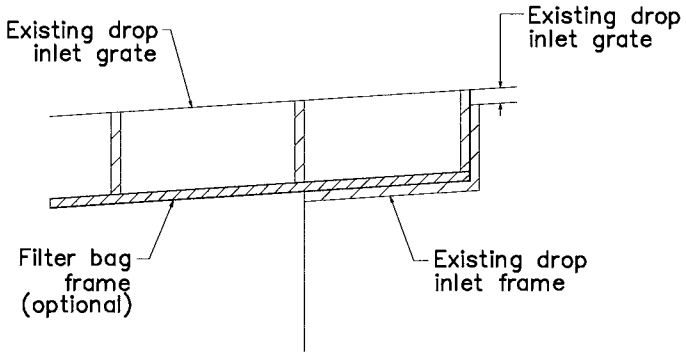
2" CONSTRUCTION WATER SERVICE

CITRUS HEIGHTS WATER DISTRICT

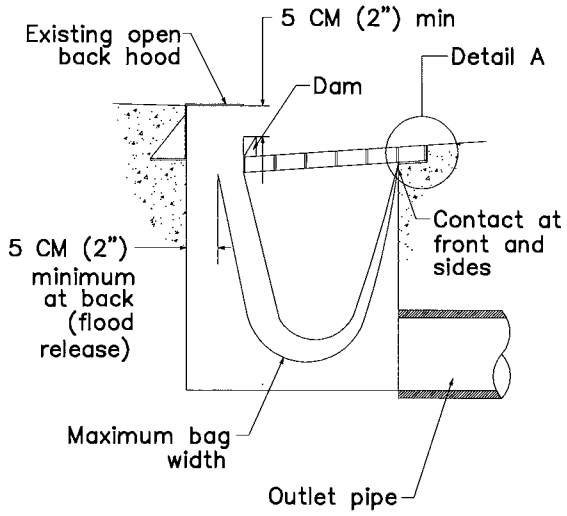
APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

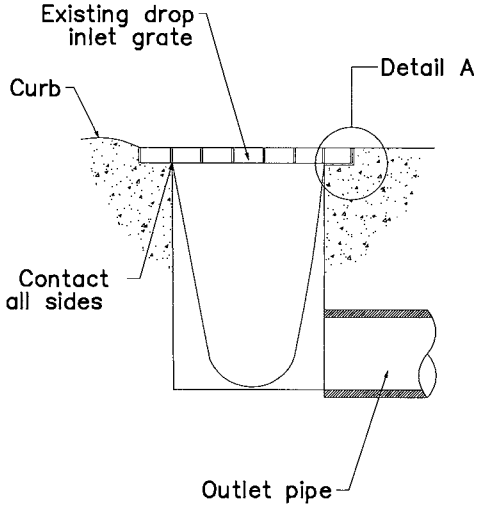
DRAWN: 8 MAY 2013
REVISED:
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: WS_221.DWG
PAGE: WS_290



DETAIL A



PLACEMENT AT CURB INLETS



PLACEMENT AT AREA INLETS

CITRUS HEIGHTS WATER DISTRICT

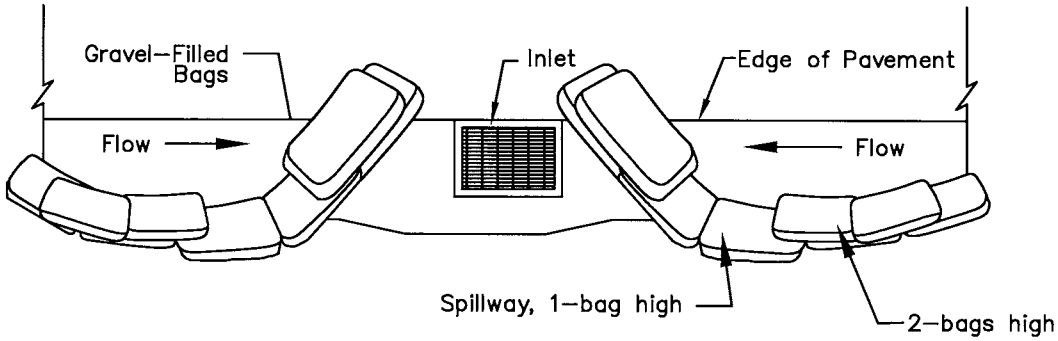
STORM DRAIN INLET PROTECTION FILTER BAG INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

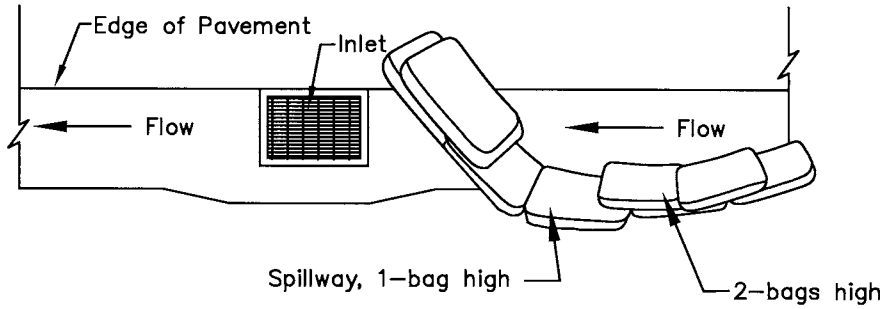
APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013
REVISED: NONE
SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_100.DWG
PAGE: SWPPP_100



TYPICAL PROTECTION FOR INLET ON SUMP



TYPICAL PROTECTION FOR INLET ON GRADE

NOTES:

1. Intended for short–term use.
2. Use to inhibit non–storm water flow.
3. Allow for proper maintenance and cleanup.
4. Bags must be removed after adjacent operation is completed
5. Not applicable without filter fabric in areas with high silts and clays.

CITRUS HEIGHTS WATER DISTRICT

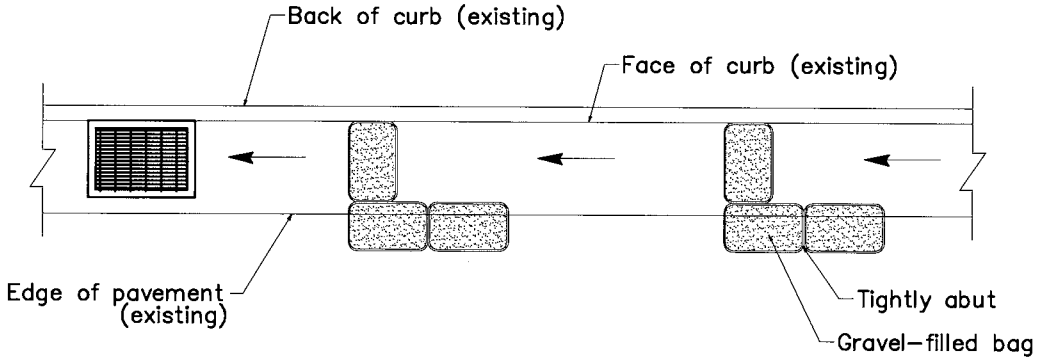
STORM DRAIN INLET PROTECTION CURB INLET INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN:	8 MAY 2013
REVISED:	NONE
SCALE:	N.T.S.
DESIGN:	P.A.D.
CAD FILE:	SWPPP_101.DWG
PAGE:	*SWPPP_101*



EXISTING CURB DRAIN SEDIMENT TRAP

CITRUS HEIGHTS WATER DISTRICT

STORM DRAIN INLET PROTECTION SEDIMENT TRAP

CITRUS HEIGHTS WATER DISTRICT

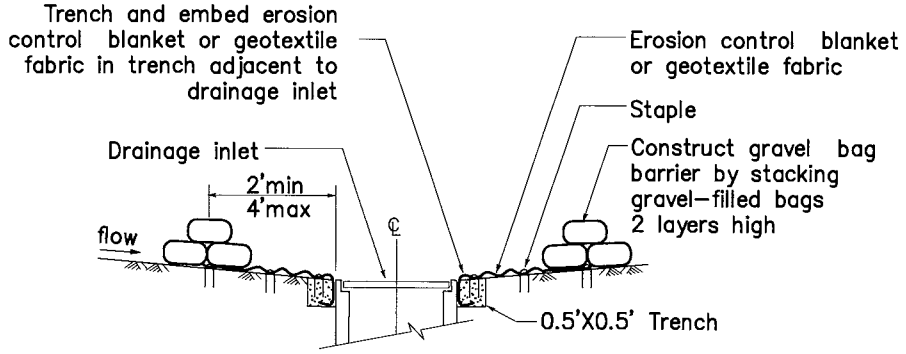
APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

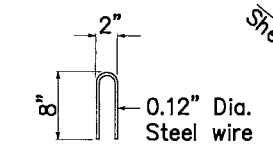
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NOTES:

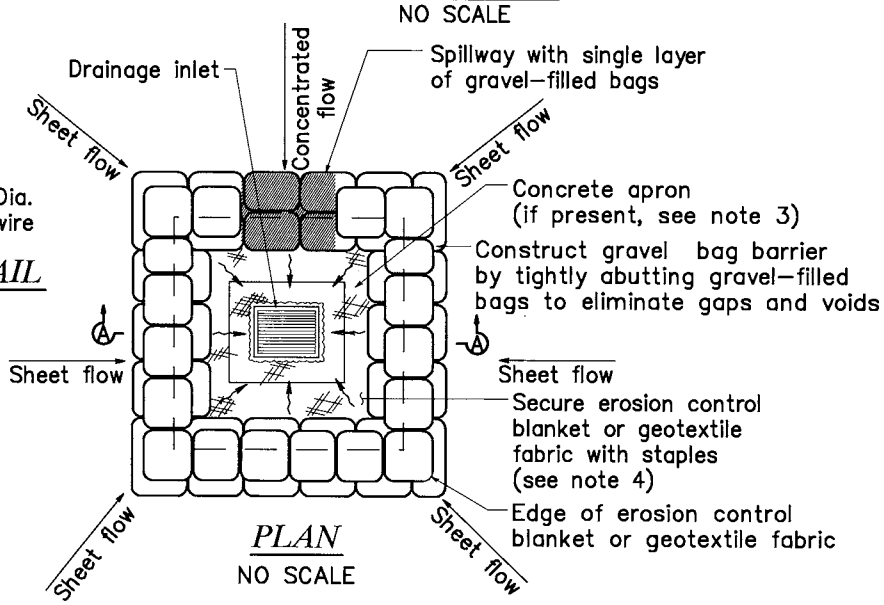
1. Dimensions may vary to fit field conditions.
2. Install a minimum of 3 gravel bag barriers upstream of each drainage inlet to be protected.
3. Position erosion control blanket or geotextile fabric at edge of concrete apron and secure in trench.
4. Erosion control blanket/geotextile fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



SECTION A-A
NO SCALE



STAPLE DETAIL
NO SCALE



PLAN
NO SCALE

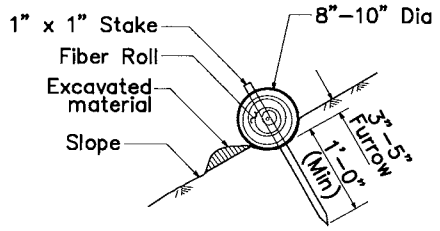
CITRUS HEIGHTS WATER DISTRICT

STORM DRAIN INLET PROTECTION
AREA INLET INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

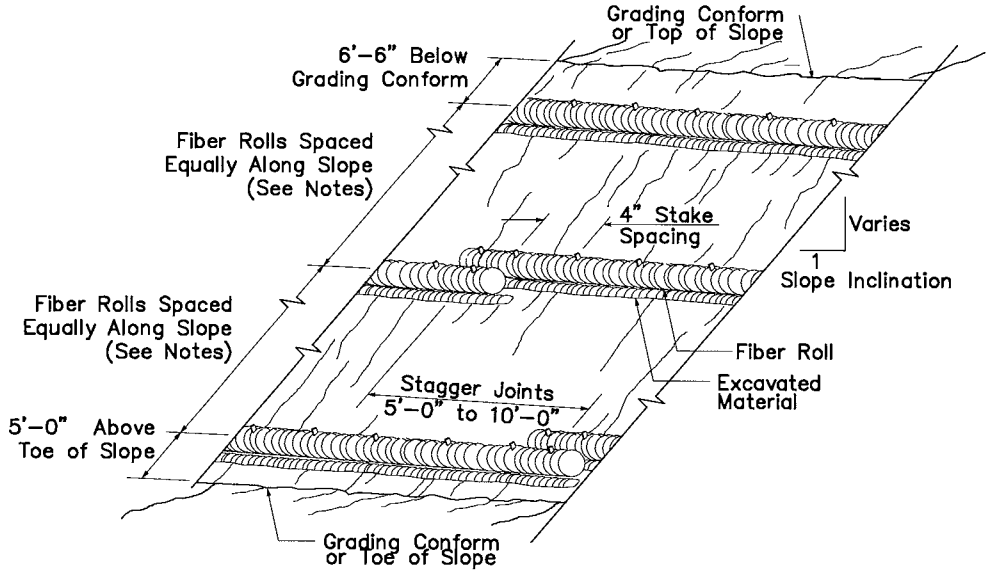
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SCALE: N.T.S.
DESIGN: P.A.D.
CAD FILE: SWPPP_103.DWG
PAGE: *SWPPP_103*



SECTION
TEMPORARY FIBER ROLL

NOTES:

1. Prepare the slope before the wattling procedure is started.
2. Dig small trenches across the slope on contour, to place rolls. The trench should be deep enough to accommodate half the thickness of the roll, when the soil is loose and uncompacted, the trench should be deep enaugh to bury the roll 2/3 of its thickness because the ground will settle.
3. Install rolls perpendicular to water movement.
4. Start at the bottom of the slope and work up.
5. Construct trench at cantour intervals of 12 feet apart.
6. Use straight bar to drive holes through the wattle and into the soil.
7. Make sure no gaps exist between the soil and the straw wattle.
8. Drive the stake through the prepared hole into the soil. Leave only 1 or 2 inches of stake exposed abave roll install stake every 4 feet apart through the wattle. Additional stakes may be driven on the downslope side of the trenches on highly erosive or very steep slopes.
9. Runoff must not be allowed to run under or around roll.



PERSPECTIVE
TEMPORARY FIBER ROLL

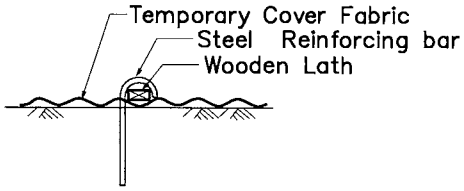
CITRUS HEIGHTS WATER DISTRICT

TEMPORARY FIBER ROLL

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

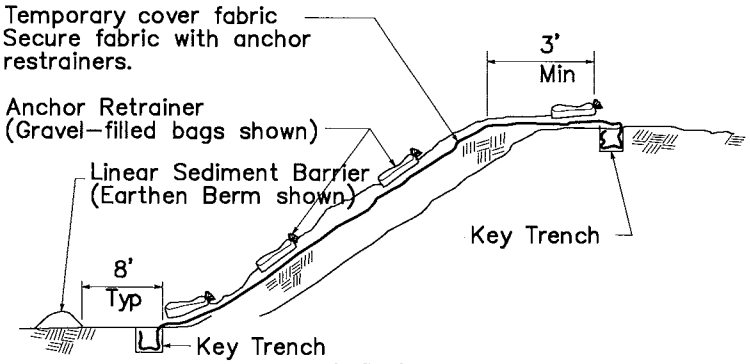
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SECTION

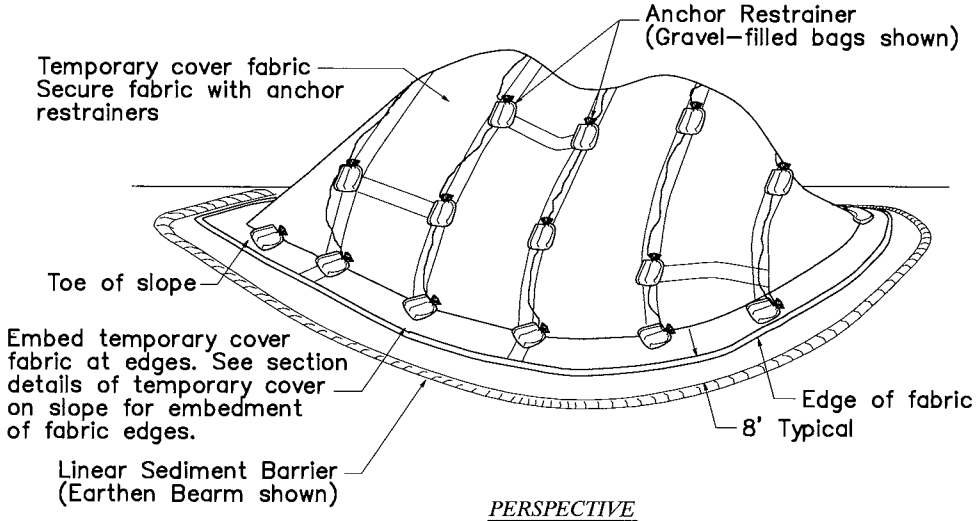
ANCHOR RESTRAINER

(Steel bar and wooden lath)



SECTION

TEMPORARY COVER ON SLOPE



PERSPECTIVE

TEMPORARY COVER ON STOCKPILE

CITRUS HEIGHTS WATER DISTRICT

TEMPORARY COVER STOCKPILE INSTALLATION

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN: 8 MAY 2013

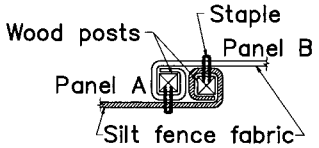
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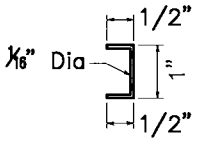
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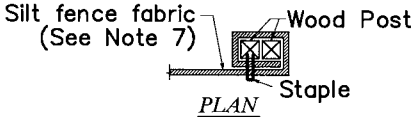
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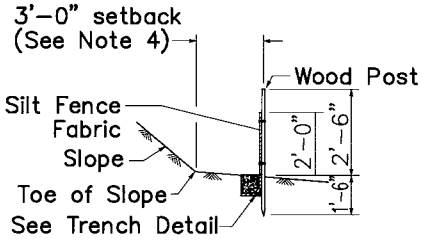
PLAN
POST AT JOINTS



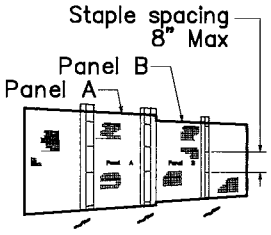
STAPLE DETAIL
(See Note 8)



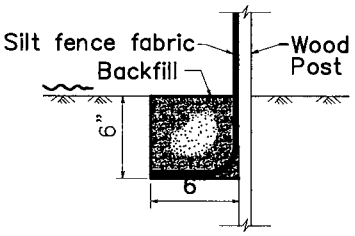
PLAN
END POST DETAIL



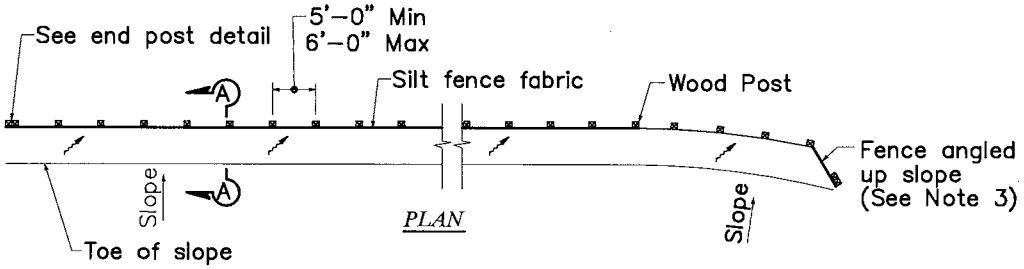
SECTION A-A
TEMPORARY SILT FENCE



PERSPECTIVE
SILT FENCE PANELS AT JOINTS



SECTION
TRENCH DETAIL



PLAN

NOTES:

1. Install Temporary Silt Fence by first digging trench, driving posts, placing and securing fabric. Then backfill and tamp.
2. Reach length not to exceed 500 feet.
3. The down stream end of the Temporary Silt Fence shall have the last 8' angled up slope.
4. Setback dimensions may vary to fit field conditions.
5. Posts to overlap and fence fabric to fold around each post one full turn. Secure fabric with 4 staples for each post.
6. Posts shall be driven tightly together to prevent potential flow–through of sediment at the joint. The tops of the posts shall be secured to each other with wire.
7. For each end post, fence fabric shall be folded around two posts one full turn and secured with 4 staples.
8. Minimum of 4 staples shall be installed per post. Dimensions shown are typical.
9. Maintenance openings shall be constructed in a manner to ensure that sediment is retained by the temporary silt fence.
10. Joint sections shall not be placed at sump locations.

LEGEND

- Tamped backfill
- Slope direction
- Direction of flow

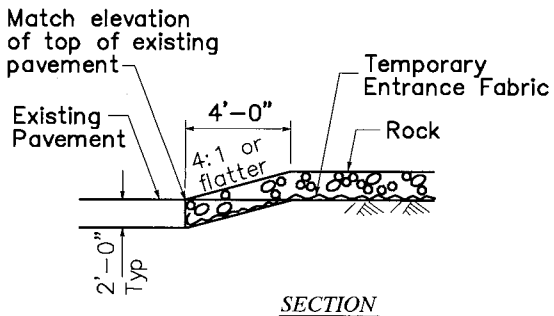
CITRUS HEIGHTS WATER DISTRICT

TEMPORARY SILT FENCE

CITRUS HEIGHTS WATER DISTRICT

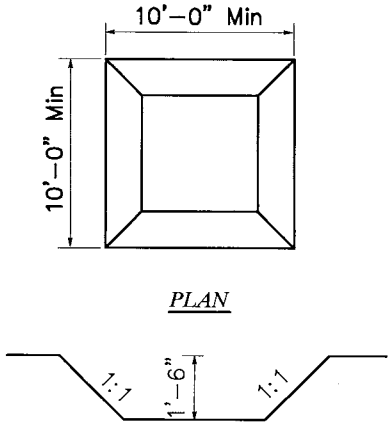
APPROVED BY: Robert A. Churchill DATE: 5/8/13
CITRUS HEIGHTS WATER DISTRICT

DRAWN:	8 MAY 2013
REVISED:	NONE
SCALE:	N.T.S.
DESIGN:	P.A.D.
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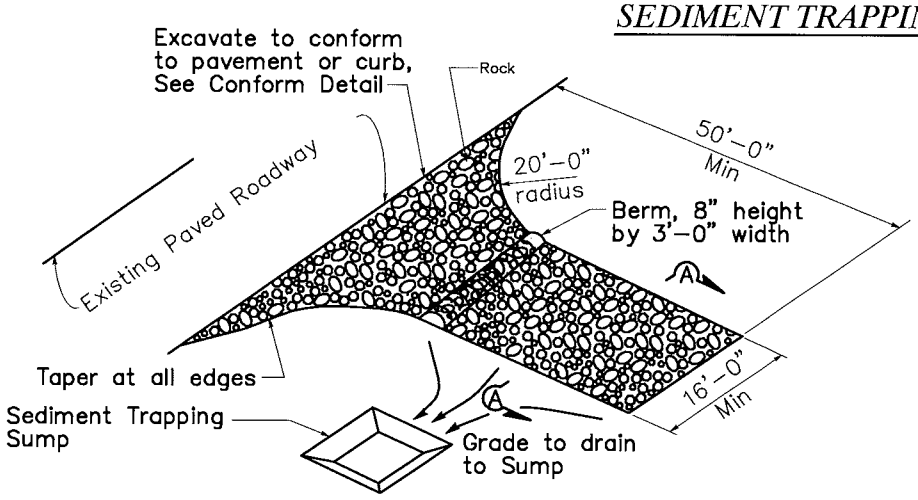
SECTION

CONFORM DETAIL



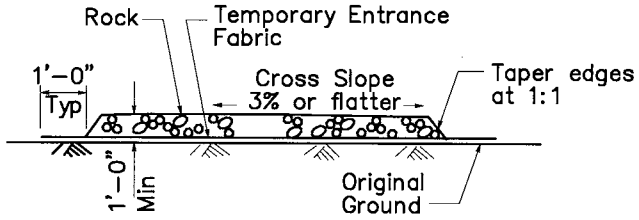
ELEVATION

SEDIMENT TRAPPING SUMP



PERSPECTIVE

TEMPORARY CONSTRUCTION ENTRANCE



SECTION A-A

CITRUS HEIGHTS WATER DISTRICT

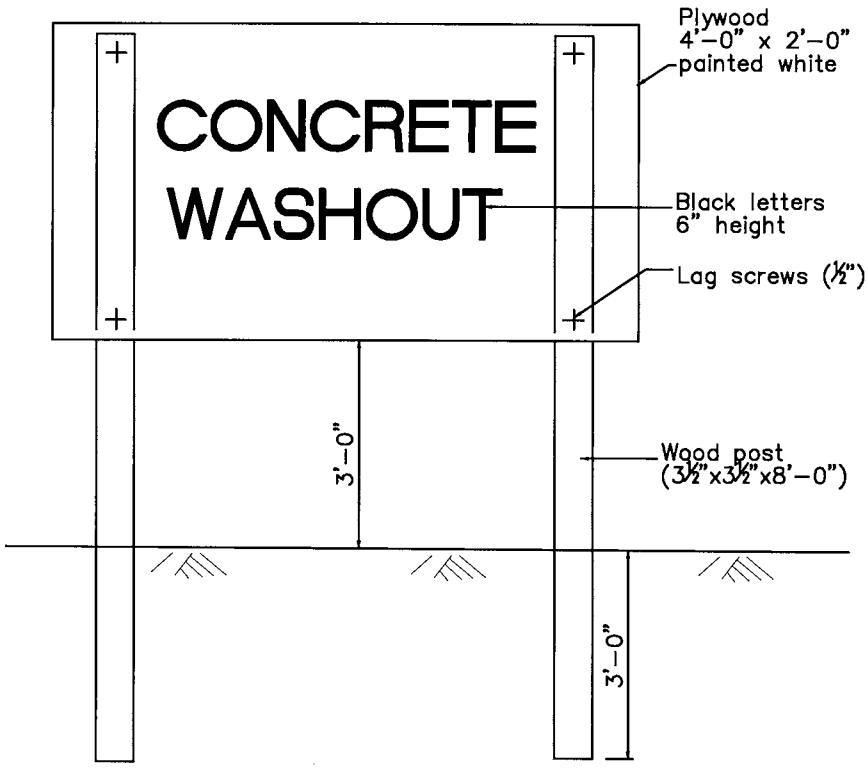
TEMPORARY CONSTRUCTION ENTRANCE

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert a. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN:	8 MAY 2013
REVISED:	NONE
SCALE:	N.T.S.
DESIGN:	P.A.D.
CAD FILE:	SWPPP_120.DWG
PAGE:	SWPPP_120



CONCRETE WASHOUT SIGN DETAIL

NOTES:

1. The concrete washout sign shall be installed within 32'-10" of the portable concrete washout container.

CITRUS HEIGHTS WATER DISTRICT

CONCRETE WASHOUT FACILITY-SIGN

CITRUS HEIGHTS WATER DISTRICT

APPROVED BY: Robert A. Churchill DATE: 5/8/13

CITRUS HEIGHTS WATER DISTRICT

DRAWN:	8 MAY 2013
REVISED:	NONE
SCALE:	N.T.S.
DESIGN:	P.A.D.
CAD FILE:	SWPPP_125.DWG
PAGE:	SWPPP_125

HIGHLAND AVENUE AND ROSA VISTA AVENUE WATER MAIN REPLACEMENT PROJECT C15-133

The following Project Plans pertain to Citrus Heights Water District's Highland Avenue and Rosa Vista Avenue Water Main Replacement Project C15-133:

Sheets 1 to 11	Project Plans are 22" x 34" and shall be purchased as a portion of the Bid Package

HIGHLAND AVENUE AND ROSA VISTA AVENUE WATER MAIN REPLACEMENT PROJECT C15-133

The following Encroachment Permit Documents pertain to Citrus Heights Water District's Highland Avenue and Rosa Vista Avenue Water Main Replacement Project C15-133:

City of Citrus Heights Encroachment Permit

Tentative Letter of Approval	(1 Page)
Specific Conditions	(1 Page)
General Provisions and Restrictions	(3 Pages)
Minimum Insurance Requirements	(2 Pages)
Temporary Traffic Control Conditions	(1 Page)

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: APPROVAL OF DESIGN SERVICES AGREEMENT FOR PLEASANT VIEW DRIVE 8" WATER MAIN REPLACEMENT PROJECT
STATUS	: Action Item
REPORT DATE	: October 12, 2017
PREPARED BY	: Missy Pieri, Engineering Manager/District Engineer

OBJECTIVE:
Consider approval of a Design Services Agreement with Warren Consulting Engineers, Inc. to provide drafting and surveying services for the Pleasant View Drive 8" Water Main Replacement Project.

BACKGROUND AND ANALYSIS:
Warren Consulting Engineers, Inc. provided a proposal for drafting and surveying services for the District's project as shown below. Warren Consulting Engineers, Inc. has provided drafting and surveying services for the District on recent projects, and is fully qualified to support the District's Engineering Department on this project.

Pleasant View Drive 8" Water Main Replacement Project:

Engineer's Preliminary Construction Cost Estimate	$367,362.00
Warren Consulting Engineers, Inc. Engineering Services	$22,000.00
Percentage of Preliminary Construction Cost Estimate	5.99%

The Design Services Contract accompanies this report.

Funding for this project is included in the 2017 Capital Projects Budget, Project Number C17-101.

Design services for this project is anticipated to be completed by June 2018. Thereafter, the project will be advertised for construction. Funding for construction is included in the 2018 Capital Projects Budget, Project Number C17-101.

RECOMMENDATION:
Authorize the General Manager to execute a Design Services Agreement with Warren Consulting Engineers, Inc. in an amount not to exceed $22,000 for drafting and surveying services for the Pleasant View Drive 8" Water Main Replacement Project.

ATTACHMENT:
Design Services Agreement for Pleasant View Drive 8" Water Main Replacement Project

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

CITRUS HEIGHTS WATER DISTRICT
DESIGN SERVICES AGREEMENT

1. PARTIES AND DATE.

This Agreement is made and entered into as October 19, 2017 by and between the Citrus Heights Water District, a municipal corporation organized and operating under the laws of the State of California with its principal place of business at 6230 Sylvan Road, Citrus Heights, California ("District"), and Warren Consulting Engineers, Inc., a California S Corporation with its principal place of business at 1117 Windfield Way, Ste.110, El Dorado Hills, CA 95762 (hereinafter referred to as "Designer"). District and Designer are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. RECITALS.

2.1 District. District is a municipal corporation organized under the laws of the State of California, with power to contract for services necessary to achieve its purpose.

2.2 Designer**.** Designer desires to perform and assume responsibility for the provision of certain professional design services required by the District on the terms and conditions set forth in this Agreement. Designer warrants that it is fully licensed, qualified, and willing to perform the services required by this Agreement; provided, however, that if Designer is a corporation or other organization, the Project Designer designated pursuant to Section 3.2, and not the Designer itself, shall be fully licensed to practice as an architect and/or engineer in the State of California.

2.3 Project**.** District desires to engage Designer to render such services for the Pleasant View Drive 8" Water Main Replacement Project ("Project") as set forth in this Agreement.

3. TERMS

3.1 Employment of Designer.

3.1.1 Scope of Services. Designer promises and agrees to furnish to District all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional design and related services necessary for the full and adequate completion of the Project consistent with the provisions of this Agreement (hereinafter referred to as "Services"). The Services are more particularly described throughout this Agreement, including Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, any exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules and regulations. All Services performed by Designer shall be subject to the sole and discretionary approval of the District, which approval shall not be unreasonably withheld.

3.1.2 Term. The term of this Agreement shall be from October 19, 2017 to December 31, 2018, unless earlier terminated as provided herein. Designer shall complete the Services within the term of this Agreement, and shall meet any other established schedules and deadlines.

3.2 Project Designer; Key Personnel.

3.2.1 Project Designer. Designer shall name a specific individual to act as Project Designer, subject to the approval of District. Designer hereby designates Anthony Tassano (License No. C74696) to act as the Project Designer for the Project. The Project Designer shall: (1) maintain oversight of the Services; (2) have full authority to represent and act on behalf of the Designer for all purposes under this Agreement; (3) supervise and direct the Services using his or her best skill and attention; (4) be responsible for the means, methods, techniques, sequences and procedures used for the Services; (5) adequately coordinate all portions of the Services; and (6) act as principal contact with District and all contractors, consultants, engineers and inspectors on the Project. Any change in the Project Designer shall be subject to the District's prior written approval, which approval shall not be unreasonably withheld. The new Project Designer shall be of at least equal competence as the prior Project Designer. In the event that District and Designer cannot agree as to the substitution of a new Project Designer, District shall be entitled to terminate this Agreement for cause.

3.2.2 Key Personnel. In addition to the Project Designer, Designer has represented to the District that certain additional key personnel, engineers and consultants will perform the Services under this Agreement. Should one or more of such personnel, engineers or consultants become unavailable, Designer may substitute others of at least equal competence upon written approval of the District. In the event that District and Designer cannot agree as to the substitution of key personnel, engineers or consultants, District shall be entitled to terminate this Agreement for cause. As discussed below, any personnel, engineers or consultants who fail or refuse to perform the Services in a manner acceptable to the District, or who are determined by the District to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Designer at the request of the District. The key additional personnel, engineers and consultants for performance of this Agreement are as follows: none.

3.3 Hiring of Consultants and Personnel.

3.3.1 Right to Hire or Employ. Designer shall have the option, unless District objects in writing after notice, to employ at its expense architects, engineers, experts or other consultants qualified and licensed to render services in connection with the planning and/or administration of the Project, and to delegate to them such duties as Designer may delegate without relieving Designer from administrative or other responsibility under this Agreement. Designer shall be responsible for the coordination and cooperation of Designer's architects, engineers, experts or other consultants. All consultants, including changes in consultants, shall be subject to approval by District in its sole and reasonable discretion. Designer shall notify District of the identity of all consultants at least fourteen (14) days prior to their commencement of work to allow District to review their qualifications and approve to their participation on the Project in its sole and reasonable discretion.

3.3.2 Qualification and License. All architects, engineers, experts and other consultants retained by Designer in performance of this Agreement shall be qualified to perform the Services assigned to them, and shall be licensed to practice in their respective professions, where required by law.

3.3.3 Standards and Insurance. All architects, engineers, experts and other consultants hired by Designer shall be required to meet all of the same standards and insurance requirements set forth in this Agreement, unless other standards or requirements are approved

by the District in writing. Unless changes are approved in writing by the District, Designer's agreements with its consultants shall contain a provision making them subject to all provisions stipulated in this Agreement.

3.3.4 Assignments or Staff Changes. Designer shall promptly obtain written District approval of any assignment, reassignment or replacement of such architects, engineers, experts and consultants, or of other staff changes of key personnel working on the Project. As provided in the Agreement, any changes in Designer's consultants and key personnel shall be subject to approval by District.

3.3.5 Draftsman and Clerical Support. Draftsmen and clerical personnel shall be retained by Designer at Designer's sole expense.

3.4 Standard of Care.

3.4.1 Standard of Care. Designer shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals qualified to perform the Services in the same discipline in the State of California, and shall be responsible to District for damages sustained by the District and delays to the Project as specified in the indemnification provision of this Agreement. Without limiting the foregoing, Designer shall be fully responsible to the District for any increased costs incurred by the District as a result of any such delays in the design or construction of the Project. Designer represents and maintains that it is skilled in the professional calling necessary to perform the Services. Designer warrants and represents that all of its employees, architects, engineers, experts and other consultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Designer represents that it, its employees, architects, engineers, experts and other consultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services assigned to or rendered by them and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Designer shall perform, at its own cost and expense and without reimbursement from the District, any services necessary to correct errors or omissions which are caused by the Designer's failure to comply with the standard of care provided for herein.

3.4.2 Performance of Employees. Any employee or consultant who is determined by the District to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee or consultant who fails or refuses to perform the Services in a manner acceptable to the District, shall be promptly removed from the Project by the Designer and shall not be re-employed to perform any of the Services or to work on the Project.

3.5 Laws and Regulations.

3.5.1 Knowledge and Compliance. Designer shall keep itself fully informed of and in compliance with all applicable local, state and federal laws, rules and regulations in any manner affecting the performance of the Services or the Project, and shall give all notices required of the Designer by law. Designer shall be liable, pursuant to the standard of care and indemnification provisions of this Agreement, for all violations of such laws and regulations in connection with its Services. If the Designer performs any work knowing it to be contrary to such laws, rules and regulations, Designer shall be solely responsible for all costs arising therefrom. Designer shall defend, indemnify and hold District, its officials, officers, employees and agents

free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.5.2 Drawings and Specifications. Designer shall cause all drawings and specifications to conform to any applicable requirements of federal, state and local laws, rules and regulations, including the Uniform Building Code, in effect as of the time the drawings and specifications are prepared or revised during the latest phase of the Services described in Exhibit "A" attached hereto. Any significant revisions made necessary by changes in such laws, rules and regulations after this time may be compensated as Additional Services which were not known or reasonably should not have been known by Designer. Designer shall cause the necessary copies of such drawings and specifications to be filed with any governmental bodies with approval jurisdiction over the Project, in accordance with the Services described in Exhibit "A" attached hereto. For the preparation of all such drawings and specifications, the Designer shall use Computer Aided Design Drafting ("CADD") (e.g., AutoCAD) or other technology acceptable to the Designer and District.

3.5.3 Americans with Disabilities Act. Designer will use its best professional efforts to interpret all applicable federal, state and local laws, rules and regulations with respect to access, including those of the Americans with Disabilities Act ("ADA"). Designer shall inform District of the existence of inconsistencies of which it is aware or reasonably should be aware between federal and state accessibility laws, rules and regulations, as well as any other issues which are subject to conflicting interpretations of the law, and shall provide the District with its interpretation of such inconsistencies and conflicting interpretations. Unless Designer brings such inconsistencies and conflicting interpretations to the attention of the District and requests District's direction on how to proceed, the Designer's interpretation of such inconsistencies and conflicting interpretations shall be the sole responsibility and liability of Designer, and the Designer shall correct all plans, specifications and other documents prepared for the Project at no additional cost if its interpretations are shown to be incorrect. In the event that the Designer request's District's direction on how to proceed with respect to any inconsistent and/or conflicting interpretation, the Designer shall be responsible to the District only pursuant to the indemnification provisions of this Agreement.

3.5.4 Permits, Approvals and Authorizations. Designer shall provide District with a list of all permits, approvals or other authorizations required for the Project from all federal, state or local governmental bodies with approval jurisdiction over the Project. Designer shall then assist the District in obtaining all such permits, approvals and other authorizations. The costs of such permits, approvals and other authorizations shall be paid by the District.

3.5.5 Water Quality Management and Compliance.

(a) Compliance with Water Quality Laws, Ordinances and Regulations. Designer shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Services including, without limitation, all applicable provisions of the District's ordinances regulating water quality and storm water; the Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq*.); the California Porter-Cologne Water Quality Control Act (Cal Water Code §§ 13000-14950); and any and all regulations, policies, or permits issued pursuant to any such authority. Designer shall additionally comply with the lawful requirements of the District, and any other municipality, drainage district, or other local agency with jurisdiction over the location where the Services are to be conducted, regulating water quality and storm water discharges.

(b) Standard of Care. Designer warrants that all employees and subcontractors shall have sufficient skill and experience to perform the work assigned to them without impacting water quality in violation of the laws, regulations and policies described in Sections 3.5.5(a) of this Agreement. Designer further warrants that it, its employees and subcontractors will receive adequate training, as determined by the District, regarding these requirements as they may relate to the Services.

(c) Liability for Non-compliance.

(i) Indemnity: Failure to comply with laws, regulations, and ordinances listed in Sections 3.5.5(a) of this Agreement is a violation of federal and state law. Notwithstanding any other indemnity contained in this Agreement, Designer agrees to indemnify and hold harmless the District, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which the District, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the laws, regulations, and ordinances listed above, arising out of or in connection with the Services, except for liability resulting from the sole established negligence, willful misconduct or active negligence of the District, its officials, officers, agents, employees or authorized volunteers.

(ii) Defense: District reserves the right to defend any enforcement action or civil action brought against the District for Designer's failure to comply with any applicable water quality law, regulation, or policy. Designer hereby agrees to be bound by, and to reimburse the District for the costs associated with, any settlement reached between the District and the relevant enforcement entity.

(iii) Damages: District may seek damages from Designer for delay in completing the Services caused by Designer's failure to comply with the laws, regulations and policies described in Section 3.5.5(a) of this Agreement, or any other relevant water quality law, regulation, or policy.

3.6 Independent Contractor.

3.6.1 Control and Payment of Subordinates. District retains Designer on an independent contractor basis and Designer is not an employee of District. Designer is not an employee for state tax, federal tax or any other purpose, and is not entitled to the rights or benefits afforded to District's employees. Any additional personnel performing the Services under this Agreement on behalf of Designer shall also not be employees of District, and shall at all times be under Designer's exclusive direction and control. Designer shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Designer shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.

3.7 Schedule of Services.

3.7.1 Designer Services. Designer shall fully and adequately complete the Services described in this Agreement and in Exhibit "A" attached hereto and incorporated herein by reference.

3.7.2 Timely Performance Standard. Designer shall perform all Services hereunder as expeditiously as is consistent with professional skill and care, as well as the orderly progress of the Project work so as not to be the cause, in whole or in part, of delays in the completion of the Project or in the achievement of any Project milestones, as provided herein. Specifically, Designer shall perform its Services so as to allow for the full and adequate completion of the Project within the time required by the District and within any completion schedules adopted for the Project. Designer agrees to coordinate with District's staff, contractors and consultants in the performance of the Services, and shall be available to District's staff, contractors and consultants at all reasonable times.

3.7.3 Performance Schedule. Designer shall prepare an estimated time schedule for the performance of Designer's Services, to be adjusted as the Project proceeds. Such schedule shall be subject to the District's review and approval, which approval shall not be unreasonably withheld, and shall include allowances for periods of time required for District's review and approval of submissions, and for approvals of authorities having jurisdiction over Project approval and funding. If District and Designer cannot mutually agree on a performance schedule, District shall have the authority to immediately terminate this Agreement. The schedule shall not be exceeded by Designer without the prior written approval of District. If the Designer's Services are not completed within the time provided by the agreed upon performance schedule, or any milestones established therein, it is understood, acknowledged and agreed that the District will suffer damage for which the Designer will be responsible pursuant to the indemnification provision of this Agreement.

3.7.4 Excusable Delays. Any delays in Designer's work caused by the following shall be added to the time for completion of any obligations of Designer: (1) the actions of District or its employees; (2) the actions of those in direct contractual relationship with District; (3) the actions of any governmental agency having jurisdiction over the Project; (4) the actions of any parties not within the reasonable control of the Designer; and (5) any act of God or other unforeseen occurrence not due to any fault or negligence on the part of Designer. Neither the District nor the Designer shall be liable for damages, liquidated or otherwise, to the other on account of such delays.

3.7.5 Request for Excusable Delay Credit. The Designer shall, within fifteen (15) calendar days of the beginning of any excusable delay, notify the District in writing of the causes of delay (unless District grants in writing a further period of time to file such notice prior to the date of final payment under the Agreement). District will then ascertain the facts and the extent of the delay, and grant an extension of time for completing the Services when, in its sole judgment, the findings of fact justify such an extension. The District's findings of fact thereon shall be final and conclusive on the parties. Extensions of time shall apply only to that portion of the Services affected by the delay and shall not apply to other portions of the Services not so affected. The sole remedy of Designer for extensions of time shall be an extension of the performance time at no cost to the District. If Additional Services are required as a result of an excusable delay, the parties shall mutually agree thereto pursuant to the Additional Services provision of this Agreement. Should Designer make an application for an extension of time, Designer shall submit evidence that the insurance policies required by this Agreement remain in effect during the requested additional period of time.

3.8 Additional Designer Services.

3.8.1 Request for Services. At District's request, Designer may be asked to perform services not otherwise included in this Agreement, not included within the basic services

listed in Exhibit “A” attached hereto, and/or not customarily furnished in accordance with generally accepted design practice.

3.8.2 Definition. As used herein, “Additional Services” mean: (1) any work which is determined by District to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary for the Designer to perform at the execution of this Agreement; or (2) any work listed as Additional Services in Exhibit “A” attached hereto. Designer shall not perform, nor be compensated for, Additional Services without prior written authorization from District and without an agreement between the District and Designer as to the compensation to be paid for such services. District shall pay Designer for any approved Additional Services, pursuant to the compensation provisions herein, so long as such services are not made necessary through the fault of Designer pursuant to the indemnification provision of this Agreement.

3.8.3 Examples of Additional Services. Such Additional Services shall not include any redesign or revisions to drawings, specifications or other documents when such revisions are necessary in order to bring such documents into compliance with applicable laws, rules, regulations or codes of which Designer was aware or should have been aware pursuant to the laws and regulations provision of this Agreement above. Such Additional Services may include, but shall not be limited to:

(a) Separately Bid Portions of Project. Plan preparation and/or administration of work on portions of the Project separately bid.

(b) Furniture and Interior Design. Assistance to District, if requested, for the selection of moveable furniture, equipment or articles which are not included in the Construction Documents.

(c) Fault of Contractor. Services caused by delinquency, default or insolvency of contractor, or by major defects in the work of the contractor, provided that any such services made necessary by the failure of Designer to detect and report such matters when it reasonably should have done so shall not be compensated.

(d) Inconsistent Approvals or Instructions. Revisions in drawings, specifications or other documents when such revisions are inconsistent with written approvals or instructions previously given and are due to causes beyond the control of Designer.

(e) Legal Proceedings. Serving as an expert witness on District's behalf or attending legal proceedings to which the Designer is not a party.

(f) Damage Repair. Supervision of repair of damages to any structure.

(g) Extra Environmental Services. Additional work required for environmental conditions (e.g. asbestos or site conditions) not already contemplated within the Designer's services for the Project.

3.9 District Responsibilities. District’s responsibilities shall include the following:

3.9.1 Data and Information. District shall make available to Designer all necessary data and information concerning the purpose and requirements of the Project, including scheduling and budget limitations, objectives, constraints and criteria. As part of the

budget limitation information, the District shall provide the Designer with a preliminary construction budget ("District's Preliminary Construction Budget").

3.9.2 Project Survey. If required pursuant to the scope of the Project and if requested by Designer, District shall furnish Designer with, or direct Designer to procure at District's expense, a survey of the Project site prepared by a registered surveyor or civil engineer, any other record documents which shall indicate existing structures, land features, improvements, sewer, water, gas, electrical and utility lines, topographical information and boundary dimensions of the site, and any other such pertinent information.

3.9.3 Bid Phase. Distribute Construction Documents to bidders and conduct the opening and review of bids for the Project.

3.9.4 Testing. Retain consultant(s) to conduct chemical, mechanical, soils, geological or other tests required for proper design of the Project, and furnish such surveys, borings, test pits, and other tests as may be necessary to reveal conditions of the site which must be known to determine soil condition or to ensure the proper development of the required drawings and specifications.

3.9.5 Required Inspections and Tests. Retain consultant(s) to conduct materials testing and inspection or environmental/hazardous materials testing and inspection pursuant to any applicable laws, rules or regulations.

3.9.6 Fees of Reviewing or Licensing Agencies. Directly pay or reimburse the payment of all fees required by any reviewing or licensing agency, or other agency having approval jurisdiction over the Project.

3.9.7 District's Representative. The District hereby designates the District Manager, or his or her designee, to act as its representative for the performance of this Agreement ("District's Representative"). District's Representative shall have the power to act on behalf of the District for all purposes under this Contract. The District Manager hereby designates Melissa Pieri, Engineering Manager/District Engineer, or his or her designee, as the District's contact for the implementation of the Services hereunder. Contractor shall not accept direction or orders from any person other than the District's Representative or his or her designee.

3.9.8 Review and Approved Documents. Review all documents submitted by Designer, including change orders and other matters requiring approval by the District Council or other officials. District shall advise Designer of decisions pertaining to such documents within a reasonable time after submission, so as not to cause unreasonable delay as provided in the excusable delay provisions of this Agreement above.

3.10 Compensation.

3.10.1 Designer's Compensation for Basic Services. District shall pay to Designer, for the performance of all Services rendered under this Agreement, the total not to exceed amount of Twenty-Two Thousand Dollars ($22,000.00) ("Total Compensation"). This Total Compensation amount shall be based upon, and may be adjusted according to, the fee schedule and related terms and conditions attached hereto as Exhibit "A" and incorporated herein by reference. The Total Compensation, as may be adjusted upon mutual agreement, shall constitute complete and adequate payment for Services under this Agreement.

3.10.2 Payment for Additional Services. At any time during the term of this Agreement, District may request that Designer perform Additional Services. As used herein, Additional Services means any work which is determined by District to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Any additional work in excess of this amount must be approved by the District. If authorized, such Additional Services will be compensated at the rates and in the manner set forth in Exhibit "C" attached hereto and incorporated herein by reference, unless a flat rate or some other form of compensation is mutually agreed upon by the parties. If District requires Designer to hire consultants to perform any Additional Services, Designer shall be compensated therefore at the rates and in the manner set forth in Exhibit "C" attached hereto and incorporated herein by reference, unless a flat rate or some other form of compensation is mutually agreed upon by the parties. District shall have the authority to review and approve the rates of any such consultants. In addition, Designer shall be reimbursed for any expenses incurred by such consultants pursuant to the terms and conditions of Section 3.10.3.

3.10.3 Reimbursable Expenses. Reimbursable expenses are in addition to compensation for the Services and Additional Services. Designer shall not be reimbursed for any expenses unless authorized in writing by District, which approval may be evidenced by inclusion in Exhibit "C" attached hereto. Such reimbursable expenses shall include only those expenses which are reasonably and necessarily incurred by Designer in the interest of the Project. Designer shall be required to acquire prior written consent in order to obtain reimbursement for the following: (1) extraordinary transportation expenses incurred in connection with the Project; (2) out-of-town travel expenses incurred in connection with the Project; (3) fees paid for securing approval of authorities having jurisdiction over the Project; (4) bid document duplication costs in excess of $1,000; and (5) other costs, fees and expenses in excess of $1,000.

3.10.4 Payment to Designer. Designer's compensation and reimbursable expenses shall be paid by District to Designer no more often than monthly. Such periodic payments shall be made based upon the percentage of work completed, and in accordance with the phasing and funding schedule provided in Exhibit "B" and the compensation rates indicated in Exhibit "C" attached hereto and incorporated herein by reference. In order to receive payment, Designer shall present to District an itemized statement which indicates Services performed, percentage of Services completed, method for computing the amount payable, and the amount to be paid. The statement shall describe the amount of Services provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement, as well as those expenses for which reimbursement is requested for that statement period. The amount paid to Designer shall never exceed the percentage amounts authorized by the phasing and funding schedule located in Exhibit "B" attached hereto. District shall, within thirty (30) days of receiving such statement, review the statement and pay all approved charges thereon pursuant to the provisions of Civil Code Section 3320. Disputed amounts shall be resolved by the parties in a mutually agreeable manner.

Payments made for Additional Services shall be made in installments, not more often than monthly, proportionate to the degree of completion of such services or in such other manner as the parties shall specify when such services are agreed upon, and in accordance with any authorized fee or rate schedule. In order to receive payment, Designer shall present to District an itemized statement which indicates the Additional Services performed, percentage of Additional Services completed, method for computing the amount payable, and the amount to be paid. The statement shall describe the amount of Additional Services provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. District shall, within thirty (30) days of receiving such statement, review

the statement and pay all approved charges thereon pursuant to the provisions of Civil Code Section 3320. Disputed amounts shall be resolved by the parties in a mutually agreeable manner.

Upon cancellation or termination of this Agreement, Designer shall be compensated as set forth in the termination provision herein.

3.10.5 Withholding Payment to Designer. The District may withhold payment, in whole or in part, to the extent reasonably necessary to protect the District from claims, demands, causes of action, costs, expenses, liabilities, losses, damages, or injuries of any kind to the extent arising out of or caused by the negligence, recklessness, or willful misconduct protected under the indemnification provisions of this Agreement. Failure by District to deduct any sums from a progress payment shall not constitute a waiver of the District's right to such sums. The District may keep any moneys which would otherwise be payable at any time hereunder and apply the same, or so much as may be necessary therefor, to the payment of any expenses, losses, or damages as determined by the District, incurred by the District for which Designer is liable under the Agreement or state law. Payments to the Designer for compensation and reimbursable expenses due shall not be contingent on the construction, completion or ultimate success of the Project. Payment to the Designer shall not be withheld, postponed, or made contingent upon receipt by the District of offsetting reimbursement or credit from parties not within the Designer's reasonable control.

3.10.6 Prevailing Wages. Designer is aware of the requirements of California Labor Code Sections 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Designer agrees to fully comply with and to require its consultants to fully comply with such Prevailing Wage Laws. District shall provide Designer with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Designer shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Designer's principal place of business and at the Project site. Designer shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure of the Designer or its consultants to comply with the Prevailing Wage Laws. It shall be mandatory upon the Designer and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Section 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Sections 1777.1).

3.10.7 Registration. If the Services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Designer and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Designer shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Designer's sole responsibility to comply with all applicable registration and labor compliance requirements.

3.11 Notice to Proceed.

Designer shall not proceed with performance of any Services under this Agreement unless and until the District provides a written notice to proceed.

3.12 Termination, Suspension and Abandonment.

3.12.1 Grounds for Termination; Designer's Termination for Cause. District hereby reserves the right to suspend or abandon, at any time and for any reason, all or any portion of the Project and the construction work thereon, or to terminate this Agreement at any time with or without cause. Designer shall be provided with at least seven (7) days advanced written notice of such suspension, abandonment or termination. In the event of such suspension, abandonment or termination, Designer shall be paid for Services and reimbursable expenses rendered up to the date of such suspension, abandonment or termination, pursuant to the schedule of payments provided for in this Agreement, less any claims against or damages suffered by District as a result of the default, if any, by Designer. Designer hereby expressly waives any and all claims for damages or compensation arising under this Agreement, except as set forth herein, in the event of such suspension, abandonment or termination. Designer may terminate this Agreement for substantial breach of performance by the District such as failure to make payment to Designer as provided in this Agreement.

3.12.2 District's Suspension of Work. If Designer's Services are suspended by District, District may require Designer to resume such Services within ninety (90) days after written notice from District. When the Project is resumed, the Total Compensation and schedule of Services shall be equitably adjusted upon mutual agreement of the District and Designer.

3.12.3 Documents and Other Data. Upon suspension, abandonment or termination, Designer shall provide to District all preliminary studies, sketches, working drawings, specifications, computations, and all other Project Documents, as defined below, to which District would have been entitled at the completion of Designer's Services under this Agreement. Upon payment of the amount required to be paid to Designer pursuant to the termination provisions of this Agreement, District shall have the rights, as provided in this Agreement hereinafter, to use such Project Documents prepared by or on behalf of Designer under this Agreement. Designer shall make such documents available to District upon request and without additional compensation other than as may be approved as a reimbursable expense.

3.12.4 Employment of other Designers. In the event this Agreement is terminated in whole or in part as provided herein, District may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

3.13 Ownership and Use of Documents; Confidentiality.

3.13.1 Ownership. All plans, specifications, original or reproducible transparencies of working drawings and master plans, preliminary sketches, design presentation drawings, structural computations, estimates and any other documents prepared pursuant to this Agreement, including, but not limited to, any other works of authorship fixed in any tangible medium of expression such as writings, physical drawings and data magnetically or otherwise recorded on computer diskettes (hereinafter referred to as the "Project Documents") shall be and remain the property of District. Although the official copyright in all Project Documents shall remain with the Designer or other applicable subcontractors or consultants, the Project Documents shall be the property of District whether or not the work for which they were made is

executed or completed. Within thirty (30) calendar days following completion of the Project, Designer shall provide to District copies of all Project Documents required by District. In addition, Designer shall retain copies of all Project Documents on file for a minimum of fifteen (15) years following completion of the Project, and shall make copies available to District upon the payment of reasonable duplication costs. Before destroying the Project Documents following this retention period, Designer shall make a reasonable effort to notify District and provide District with the opportunity to obtain the documents.

3.13.2 Right to Use. Designer grants to District the right to use and reuse all or part of the Project Documents, at District's sole discretion and with no additional compensation to Designer, for the following purposes:

(a) The construction of all or part of this Project.

(b) The repair, renovation, modernization, replacement, reconstruction or expansion of this Project at any time;

(c) The construction of another project by or on behalf of the District for its ownership and use;

District is not bound by this Agreement to employ the services of Designer in the event such documents are used or reused for these purposes. District shall be able to use or reuse the Project Documents for these purposes without risk of liability to the Designer or third parties with respect to the condition of the Project Documents, and the use or reuse of the Project Documents for these purposes shall not be construed or interpreted to waive or limit District's right to recover for latent defects or for errors or omissions of the Designer.

Any use or reuse by District of the Project Documents on any project other than this Project without employing the services of Designer shall be at District's own risk with respect to third parties. If District uses or reuses the Project Documents on any project other than this Project, it shall remove the Designer's seal from the Project Documents and hold harmless Designer and its officers, directors, agents and employees from claims arising out of the negligent use or re-use of the Project Documents on such other project.

3.13.3 License. This Agreement creates a non-exclusive and perpetual license for District to copy, use, modify or reuse any and all Project Documents and any intellectual property rights therein. Designer shall require any and all subcontractors and consultants to agree in writing that District is granted a non-exclusive and perpetual license for the work of such subcontractors or consultants performed pursuant to this Agreement.

3.13.4 Right to License. Designer represents and warrants that Designer has the legal right to license any and all copyrights, designs and other intellectual property embodied in the Project Documents that Designer prepares or causes to be prepared pursuant to this Agreement. Designer shall indemnify and hold District harmless pursuant to the indemnification provisions of this Agreement for any breach of this Section. Designer makes no such representation and warranty in regard to previously prepared designs, plans, specifications, studies, drawings, estimates or other documents that were prepared by design professionals other than Designer and provided to Designer by District.

3.13.5 Confidentiality. All Project Documents, either created by or provided to Designer in connection with the performance of this Agreement, shall be held confidential by

Designer to the extent they are not subject to disclosure pursuant to the Public Records Act. All Project Documents shall not, without the written consent of District, be used or reproduced by Designer for any purposes other than the performance of the Services. Designer shall not disclose, cause or facilitate the disclosure of the Project Documents to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Designer which is otherwise known to Designer or is generally known, or has become known, to the related industry shall be deemed confidential. Designer shall not use District's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the written consent of District.

3.14 Indemnification.

3.14.1 Scope of Indemnity. To the fullest extent permitted by law, Designer shall defend, indemnify and hold the District, its officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Designer, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Designer's Services, the Project or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent Designer's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Designer.

3.14.2 Additional Indemnity Obligations. To the fullest extent permitted by law, Designer shall defend, with counsel of District's choosing and at Designer's own cost, expense and risk, any and all claims, suits, actions or other proceedings of every kind covered by Section 3.14.1 that may be brought or instituted against District or its officials, officers, employees, volunteers and agents. Designer shall pay and satisfy any judgment, award or decree that may be rendered against District or its officials, officers, employees, volunteers and agents as part of any such claim, suit, action or other proceeding. Designer shall also reimburse District for the cost of any settlement paid by District or its officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for District's attorney's fees and costs, including expert witness fees. Designer shall reimburse District~~,~~ and its officials, officers, employees, agents, and/or volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Designer's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the District, its officials~~,~~ officers, employees, agents or volunteers.

3.15 Insurance. Designer shall not commence work under this Agreement until it has provided evidence satisfactory to the District that it has secured all insurance required under this Section. In addition, Designer shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the District that the subconsultant has secured all insurance required under this section.

3.15.1 Types of Insurance Required. As a condition precedent to the effectiveness of this Agreement for work to be performed hereunder, and without limiting the indemnity provisions of the Agreement, Designer shall, at its expense, procure and maintain in full force and effect for the duration of the Agreement the following policies of insurance. If the

existing policies do not meet the insurance requirements set forth herein, Designer agrees to amend, supplement or endorse the policies to do so.

3.15.2 Additional Insured. The District, its officials, officers, employees, agents, and volunteers shall be named as additional insureds on Designer's and its subconsultants' policies of commercial general liability and automobile liability insurance using the endorsements and forms specified herein or exact equivalents.

3.15.3 Commercial General Liability

(a) The Designer shall take out and maintain, during the performance of all work under this Agreement, in amounts not less than specified herein, Commercial General Liability Insurance, in a form and with insurance companies acceptable to the District.

(b) Coverage for Commercial General Liability insurance shall be at least as broad as the following: Insurance Services Office Commercial General Liability coverage (Occurrence Form CG 00 01) or exact equivalent. Commercial General Liability Insurance must include coverage for the following:

(1) Bodily Injury and Property Damage

(2) Personal Injury/Advertising Injury

(3) Premises/Operations Liability

(4) Products/Completed Operations Liability

(5) Aggregate Limits that Apply per Project

(6) Explosion, Collapse and Underground (UCX) exclusion deleted

(7) Contractual Liability with respect to this Contract

(8) Broad Form Property Damage

(9) Independent Contractors Coverage

(c) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; (3) products/completed operations liability; or (4) contain any other exclusion contrary to the Agreement.

(d) The policy shall give District, the District Council and each member of the District Council, its officers, employees, agents and District designated volunteers additional insured status using ISO endorsement forms CG 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(e) The general liability program may utilize either deductibles or provide coverage excess of a self-insured retention, subject to written approval by the District, and provided that such deductibles shall not apply to the District as an additional insured.

3.15.4 Automobile Liability

(a) At all times during the performance of the work under this Agreement, the Designer shall maintain Automobile Liability Insurance for bodily injury and property damage including coverage for owned, non-owned and hired vehicles, in a form and with insurance companies acceptable to the District.

(b) Coverage for automobile liability insurance shall be at least as broad as Insurance Services Office Form Number CA 00 01 covering automobile liability (Coverage Symbol 1, any auto).

(c) The policy shall give District, the District Council and each member of the District Council, its officers, employees, agents and District designated volunteers additional insured status.

(d) Subject to written approval by the District, the automobile liability program may utilize deductibles, provided that such deductibles shall not apply to the District as an additional insured, but not a self-insured retention.

3.15.5 Workers' Compensation/Employer's Liability

(a) Designer certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(b) To the extent Designer has employees at any time during the term of this Agreement, at all times during the performance of the work under this Agreement, the Designer shall maintain full compensation insurance for all persons employed directly by him/her to carry out the work contemplated under this Agreement, all in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any acts amendatory thereof, and Employer's Liability Coverage in amounts indicated herein. Designer shall require all subconsultants to obtain and maintain, for the period required by this Agreement, workers' compensation coverage of the same type and limits as specified in this Section.

3.15.6 Professional Liability (Errors and Omissions)

(a) At all times during the performance of the work under this Agreement the Designer shall maintain professional liability or Errors and Omissions insurance appropriate to its profession, in a form and with insurance companies acceptable to the District and in an amount indicated herein. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Designer. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

3.15.7 Minimum Policy Limits Required

(a) The following insurance limits are required for the Agreement:

	Combined Single Limit
Commercial General Liability	$1,000,000 per occurrence/ $2,000,000 aggregate for bodily injury, personal injury, and property damage
Automobile Liability	$1,000,000 per occurrence for bodily injury and property damage
Employer's Liability	$1,000,000 per occurrence
Professional Liability	$1,000,000 per claim and aggregate (errors and omissions)

(b) Defense costs shall be payable in addition to the limits.

(c) Requirements of specific coverage or limits contained in this Section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. Any available coverage shall be provided to the parties required to be named as Additional Insured pursuant to this Agreement.

3.15.8 Evidence Required

(a) Prior to execution of the Agreement, the Designer shall file with the District evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. Such evidence shall include original copies of the ISO CG 00 01 (or insurer's equivalent) signed by the insurer's representative and Certificate of Insurance (Acord Form 25-S or equivalent), together with required endorsements. All evidence of insurance shall be signed by a properly authorized officer, agent, or qualified representative of the insurer and shall certify the names of the insured, any additional insureds, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, and the expiration date of such insurance.

3.15.9 Policy Provisions Required

(a) Designer shall provide the District at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Designer shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Designer shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the District at least ten (10) days prior to the effective date of cancellation or expiration.

(b) The Commercial General Liability Policy and Automobile Policy shall each contain a provision stating that Designer's policy is primary insurance and that any insurance, self-insurance or other coverage maintained by the District or any named insureds shall not be called upon to contribute to any loss.

(c) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Designer shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Designer shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(d) All required insurance coverages, except for the professional liability coverage, shall contain or be endorsed to waiver of subrogation in favor of the District, its officials, officers, employees, agents, and volunteers or shall specifically allow Designer or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Designer hereby waives its own right of recovery against District, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

(e) The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Designer from liability in excess of such coverage, nor shall it limit the Designer's indemnification obligations to the District and shall not preclude the District from taking such other actions available to the District under other provisions of the Agreement or law.

3.15.10 Qualifying Insurers

(a) All policies required shall be issued by acceptable insurance companies, as determined by the District, which satisfy the following minimum requirements: Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and admitted to transact in the business of insurance in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.

3.15.11 Additional Insurance Provisions

(a) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Designer, and any approval of said insurance by the District, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Designer pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(b) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, District has the right but not the duty to obtain the insurance it deems necessary and any premium paid by District will be promptly reimbursed by Designer or District will withhold amounts sufficient to pay premium from Designer payments. In the alternative, District may cancel this Agreement.

(c) The District may require the Designer to provide complete copies of all insurance policies in effect for the duration of the Project.

(d) Neither the District nor the District Council, nor any member of the District Council, nor any of the officials, officers, employees, agents or volunteers shall be personally responsible for any liability arising under or by virtue of this Agreement.

3.15.12 Subconsultant Insurance Requirements

(a) Designer shall not allow any subcontractors or subconsultants to commence work on any subcontract until they have provided evidence satisfactory to the District that they have secured all insurance required under this Section. Policies of commercial general liability insurance provided by such subcontractors or subconsultants shall be endorsed to name the District as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Designer, District may approve different scopes or minimum limits of insurance for particular subcontractors or subconsultants.

3.16 Records.

Designer shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Designer shall allow a representative of District during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Designer shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of five (5) years from the date of final payment under this Agreement.

3.17 Standardized Manufactured Items.

Designer shall cooperate and consult with District in the use and selection of manufactured items on the Project, including but not limited to, paint, hardware, plumbing, mechanical and electrical equipment, fixtures, roofing materials and floor coverings. All such manufactured items shall be standardized to District's criteria to the extent such criteria do not interfere with building design.

3.18 Limitation of Agreement.

This Agreement is limited to and includes only the work included in the Project described herein. Any additional or subsequent construction at the site of the Project, or at any other District site, will be covered by, and be the subject of, a separate Agreement for design services between District and the designer chosen therefor by District.

3.19 Mediation.

Disputes arising from this Agreement may be submitted to mediation if mutually agreeable to the parties hereto. The type and process of mediation to be utilized shall be subject to the mutual agreement of the parties.

3.20 Successors and Assigns.

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each party to this Agreement. However, Designer shall not assign or transfer by operation of law or otherwise any or all of its rights,

burdens, duties or obligations without the prior written consent of District. Any attempted assignment without such consent shall be invalid and void.

3.21 Asbestos Certification.

Designer shall certify to District, in writing and under penalty of perjury, that to the best of its knowledge, information and belief no asbestos-containing material or other material deemed to be hazardous by the state or federal government was specified as a building material in any construction document that the Designer prepares for the Project. Designer shall require all consultants who prepare any other documents for the Project to submit the same written certification. Designer shall also assist the District in ensuring that contractors provide District with certification, in writing and under penalty of perjury, that to the best of their knowledge, information and belief no material furnished, installed or incorporated into the Project contains asbestos or any other material deemed to be hazardous by the state or federal government. These certifications shall be part of the final Project submittal. Designer shall include statements in its specifications that materials containing asbestos or any other material deemed to be hazardous by the state or federal government are not to be included.

3.22 No Third Party Rights.

This Agreement shall not create any rights in, or inure to the benefits of, any third party except as expressly provided herein.

3.23 Governing Law.

This Agreement shall be construed in accordance with, and governed by, the laws of the State of California. Venue shall be in Sacramento County.

3.24 Exhibits and Recitals.

All exhibits and recitals contained herein and attached hereto are material parts of this Agreement and are incorporated as if fully set forth.

3.25 Severability.

Should any provision in the Agreement be held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall continue in full force and effect.

3.26 Non-Waiver.

None of the provisions of this Agreement shall be considered waived by either party, unless such waiver is specifically specified in writing.

3.27 Safety.

Designer shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Designer shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of its employees, consultant and subcontractors appropriate to the nature of the work and the conditions under which the work is to be performed.

3.28 Harassment Policy.

Designer shall provide a copy of the District's Harassment Policy to each of its employees assigned to perform the tasks under this Agreement. Designer shall submit to the District's Personnel Manager a statement signed by each of its employees who are assigned to perform the Services under this Agreement certifying receipt of District's Harassment Policy and certifying that they have read the Harassment Policy. A finding by the District that any of Designer's employees has harassed a District employee shall be grounds for appropriate discipline, up to and including such employee's removal from performance of this Agreement at District's request.

3.29 Delivery of Notices.

All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

DISTRICT:	CONSULTANT:
Citrus Heights Water District	Warren Consulting Engineers, Inc.
6230 Sylvan Road	1117 Windfield Way, Suite 110
Citrus Heights, California 95610	El Dorado Hills, California 95762
Attn: Melissa Pieri, PE	Attn: Anthony Tassano, PE

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.30 Time of Essence.

Time is of the essence for each and every provision of this Agreement.

3.31 District's Right to Employ Other Consultants.

District reserves right to employ other consultants, including designers, in connection with this Project or other projects.

3.32 Prohibited Interests.

3.32.1 Solicitation. Designer maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Designer, to solicit or secure this Agreement. Further, Designer warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Designer, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, District shall have the right to rescind this Agreement without liability.

3.32.2 Conflict of Interest. For the term of this Agreement, no director, official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.33 Equal Opportunity Employment.

Designer represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or any other classification protected by federal or state law. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Designer shall also comply with all relevant provisions of District's minority business enterprise program, affirmative action plan or other related programs or guidelines currently in effect or hereinafter enacted.

3.34 Labor Certification.

By its signature hereunder, Designer certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.

3.35 Subcontracting.

As specified in this Agreement, Designer shall not subcontract any portion of the Services required by this Agreement, except as expressly stated herein, without prior written approval of District. Subcontracts, if any, shall contain a provision making them subject to each and every provision of this Agreement.

3.36 Supplemental Conditions.

Any supplemental conditions shall be attached as an exhibit to this Agreement, and that exhibit shall be incorporated herein by reference.

3.37 Entire Agreement.

This Agreement, with its exhibits, contains the entire agreement of the parties hereto, and supersedes any and all other prior or contemporaneous negotiations, understandings and oral or written agreements between the parties hereto. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. Furthermore, any modification of this Agreement shall only be effective if in writing signed by all parties hereto.

[SIGNATURES ON FOLLOWING PAGE]

SIGNATURE PAGE FOR DESIGN SERVICES AGREEMENT BETWEEN THE CITRUS HEIGHTS WATER DISTRICT AND WARREN CONSULTING ENGINEERS, INC.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

CITRUS HEIGHTS WATER DISTRICT	WARREN CONSULTING ENGINEERS, INC.
By: _____	By: _____
Hilary M. Straus	
General Manager	Its: _____
	Printed Name: _____
	Federal ID No. _____
	Business License Number _____ (City of _____)

EXHIBIT “A”

DESIGNER’S SCOPE OF SERVICES

Warren Consulting Engineers, Inc.

October 11, 2017

email: mpieri@chwd.org

Missy Pieri
District Engineer
Citrus Heights Water District
6230 Sylvan Road
Citrus Heights, CA 95611

RE: PROPOSAL FOR ENGINEERING SERVICES FOR PLEASANT VIEW DRIVE 8" WATER MAIN

Dear Missy:
We are pleased to submit for your review and consideration our proposal for the above referenced project. The scope of work consists of:

1. **Topographic Survey**
   A. Prepare topographic survey of project area, including property lines and easements. See attached sketch.
   B. CAD Data reduction to produce finished drawing.
   C. Title Report, if required, will be ordered from the title company as a reimbursable expense.

2. **Schematic Design Phase**
   A. Review existing conditions and survey for conformance.
   B. Meet with CHWD to finalize route.

3. **Design Development Phase**
   A. Prepare design development drawings for water line replacement on Pleasant View Drive.
   B. Submit plans to CHWD for review and comments prior to beginning construction documents.

4. **Construction Document Phase**
   A. Prepare construction documents for the water line extension. The plans will contain:
      1. Topographic survey.
      2. Horizontal control plan.
      3. Water line plans and profiles per CHWD standards.
      4. Details and sections.
   B. Revise drawings as needed to obtain approval from City of Citrus Heights, Sacramento Metro Fire Department and CHWD. CHWD to route plans for signatures.

Proposed fee for above scope of work:

Topographic Survey:		$6,500.00
Schematic Design:		$2,500.00
Design Development:		$4,500.00
Construction Documents:		$8,500.00
	Sub-Total Fee:	**$22,000.00**

Items not included in this proposal are:

1. Agency fees.
2. Arborist Report.
3. Construction Management services.
4. Construction Inspection.
5. Environmental Process Applications, Permits, Hearings, etc.
6. Soils investigation and testing.
7. Easements
8. Storm Water Pollution Prevention Plan (not required).
9. Construction Staking
10. Title Reports, if required.

Billing will be on a monthly basis for work completed within that calendar month. Payment shall be made within 30 days of receiving the billing statement.

If this proposal is acceptable, please sign and return one copy.

Sincerely,

Accepted: _____

Anthony J. Tassano, P.E.

Date: _____

AJT/tlb

17P.376

TOPOGRAPHIC SURVEY CHECKLIST **DATE: 10/11/17**

TO: Missy Pieri
PROJECT: Survey for Pleasant View Drive 8 Inch Water Main
LOCATION:
APN:
OWNER: Citrus Heights Water District
ADDRESS:

ITEMS NEEDED FROM OWNER

☒ 1. Title Reports – **IF REQUIRED**

☐ 2. Permission to Enter Site

☐ 3. Contact Person and Phone Number

☒ 4. CHWD to provide as built or design drawings of existing facilities on-site if available. **NEEDED WITH NOTICE TO PROCEED**

DRAWINGS

☒ 5. Scale of finished drawing shall be 1" = 20'.

☒ 6. Finish drawing shall be a signed bond paper plot.

☒ 7. CD AutoCAD disk, 2014 Release.

ELEVATION BASIS

☒ 8. Based on County/City benchmark.

☐ 9. Based on previous survey.

☐ 10. Assumed elevation.

BOUNDARY

☒ 11. Property line bearings, dimensions, reference points, and other pertinent data.

☒ 12 Locate and identify monuments and markers found.

☐ 13. Set a monument at each change in boundary course when no monument is existing, and file record survey with the County.

☒ 14. Indicate easements, rights of way, and encroachments on and immediately adjacent to the right of way.

PROJECT: Pleasant View Drive 8 Inch Water Mains Date: 10/11/17

☒ 15. Boundary will be as shown from record information.

☒ 16. Establish two temporary benchmarks within the area surveyed.

TOPOGRAPHY

☒ 17. Contour interval shall be 1 foot, in nonpervious areas.

☒ 18. Point elevation grid interval shall be 50 feet, approximate.

☒ 19. Indicate special point elevations as may be required to provide complete land surface picture (i.e., high points, swales, etc.).

☒ 20. Indicate surface water conditions including ditches, drainage channels, ponds, and natural courses.

☐ 21. Other: _____

PLANIMETRIC

☐ 22. Location and floor elevation of all permanent structures, at all exterior doors.

☐ 23. Location and floor elevation of all permanent structures, at all exterior doors at building elevation.

☒ 24. Indicate miscellaneous walks, roads, structures, paving, fences, etc.

☐ 25. Show individual trees with diameters larger than 4 inches. If trees are numerous, indicate perimeter of dripline.

☒ 26. Ground elevation at tree trunk.

☐ 27. Indicate tree dripline, ground elevation at four quadrants of tree dripline.

☒ 28. Indicate tree dripline, no ground elevation.

☒ 29. Show location and elevation of all right of way improvements, such as curbs, gutters, walks, and edge of paving, and centerline. Survey to extend 10' behind back of curb along all streets being surveyed.

☒ 30. Show above ground utilities and elevation of top of subsurface utility structures.

PROJECT: Pleasant View Drive 8 Inch Water Mains **Date: 10/11/17**

UNDERGROUND

☒ 31. Indicate size, location and invert elevation of accessible subsurface piping and conduit including abandoned lines.

☒ 32. Indicate size, location and invert elevation of subsurface piping and conduit available in existing records including abandoned lines.

☐ 33. Indicate size, location and type of construction of visible wells, septic tanks, pumps, basements and similar subsurface improvements, active or abandoned.

☐ 34. Indicate areas of irrigation utilizing subsurface systems, showing system layout where available.

☐ 35. Information on subsurface improvements within street right of way as outlined in Item 29.

☐ 36. Information on subsurface improvements within street right of way as outlined in Item 30.

☐ 37. Owner to provide as built or design drawings of existing facilities on-site, if available.

☐ 38. Other:

☒ 39. See attached sketch.
☐ 40. See attached material.
☐ 41. Direct proposal to Architect.
☒ 42. Direct proposal to Citrus Heights Water District.

Comments: _____


Cross Dr
Oak Ave
Yarrow Way
Quiet Oak Ln
Pleasantview Dr
Poppyfield Way
Fair Oaks Blvd
SURVEY AREA
Single Way
McClung Dr
San Cosme Dr
Dana Butte Way
Alma Mesa Way

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: APPROVAL OF DESIGN SERVICES AGREEMENT FOR MICHIGAN DRIVE 8" WATER MAIN REPLACEMENT PROJECT
STATUS	: Action Item
REPORT DATE	: October 10, 2017
PREPARED BY	: Missy Pieri, Engineering Manager/District Engineer

OBJECTIVE:
Consider approval of a Design Services Agreement with Warren Consulting Engineers, Inc. to provide drafting and surveying services for the Michigan Drive 8" Water Main Replacement Project.

BACKGROUND AND ANALYSIS:
Warren Consulting Engineers, Inc. provided a proposal for drafting and surveying services for the District's project as shown below. Warren Consulting Engineers, Inc. has provided drafting and surveying services for the District on recent projects and is fully qualified to support the District's Engineering Department on this project.

Michigan Drive 8" Water Main Replacement Project:

Engineer's Preliminary Construction Cost Estimate	$183,741.00
Warren Consulting Engineers, Inc. Engineering Services	$11,000.00
Percentage of Preliminary Construction Cost Estimate	5.99%

The Design Services Contract accompanies this report.

Funding for this project is included in the 2017 Capital Projects Budget, Project Number C17-102.

Design services for this project is anticipated to be completed by June 2018. Thereafter, the project will be advertised for construction. Funding for construction is included in the 2018 Capital Projects Budget, Project Number C17-102.

RECOMMENDATION:
Authorize the General Manager to execute a Design Services Agreement with Warren Consulting Engineers, Inc. in an amount not to exceed $11,000 for drafting and surveying services for the Michigan Drive 8" Water Main Replacement Project.

ATTACHMENT:
Design Services Agreement for Michigan Drive 8" Water Main Replacement Project

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

CITRUS HEIGHTS WATER DISTRICT
DESIGN SERVICES AGREEMENT

1. PARTIES AND DATE.

This Agreement is made and entered into as October 19, 2017 by and between the Citrus Heights Water District, a municipal corporation organized and operating under the laws of the State of California with its principal place of business at 6230 Sylvan Road, Citrus Heights, California ("District"), and Warren Consulting Engineers, Inc., a California S Corporation with its principal place of business at 1117 Windfield Way, Ste.110, El Dorado Hills, CA 95762 (hereinafter referred to as "Designer"). District and Designer are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. RECITALS.

2.1 District. District is a municipal corporation organized under the laws of the State of California, with power to contract for services necessary to achieve its purpose.

2.2 Designer**.** Designer desires to perform and assume responsibility for the provision of certain professional design services required by the District on the terms and conditions set forth in this Agreement. Designer warrants that it is fully licensed, qualified, and willing to perform the services required by this Agreement; provided, however, that if Designer is a corporation or other organization, the Project Designer designated pursuant to Section 3.2, and not the Designer itself, shall be fully licensed to practice as an architect and/or engineer in the State of California.

2.3 Project**.** District desires to engage Designer to render such services for the Michigan Drive 8" Water Main Replacement Project ("Project") as set forth in this Agreement.

3. TERMS

3.1 Employment of Designer.

3.1.1 Scope of Services. Designer promises and agrees to furnish to District all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional design and related services necessary for the full and adequate completion of the Project consistent with the provisions of this Agreement (hereinafter referred to as "Services"). The Services are more particularly described throughout this Agreement, including Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, any exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules and regulations. All Services performed by Designer shall be subject to the sole and discretionary approval of the District, which approval shall not be unreasonably withheld.

3.1.2 Term. The term of this Agreement shall be from October 19, 2017 to June 01, 2018, unless earlier terminated as provided herein. Designer shall complete the Services within the term of this Agreement, and shall meet any other established schedules and deadlines.

3.2 Project Designer; Key Personnel.

3.2.1 Project Designer. Designer shall name a specific individual to act as Project Designer, subject to the approval of District. Designer hereby designates Anthony Tassano (License No. C74696) to act as the Project Designer for the Project. The Project Designer shall: (1) maintain oversight of the Services; (2) have full authority to represent and act on behalf of the Designer for all purposes under this Agreement; (3) supervise and direct the Services using his or her best skill and attention; (4) be responsible for the means, methods, techniques, sequences and procedures used for the Services; (5) adequately coordinate all portions of the Services; and (6) act as principal contact with District and all contractors, consultants, engineers and inspectors on the Project. Any change in the Project Designer shall be subject to the District's prior written approval, which approval shall not be unreasonably withheld. The new Project Designer shall be of at least equal competence as the prior Project Designer. In the event that District and Designer cannot agree as to the substitution of a new Project Designer, District shall be entitled to terminate this Agreement for cause.

3.2.2 Key Personnel. In addition to the Project Designer, Designer has represented to the District that certain additional key personnel, engineers and consultants will perform the Services under this Agreement. Should one or more of such personnel, engineers or consultants become unavailable, Designer may substitute others of at least equal competence upon written approval of the District. In the event that District and Designer cannot agree as to the substitution of key personnel, engineers or consultants, District shall be entitled to terminate this Agreement for cause. As discussed below, any personnel, engineers or consultants who fail or refuse to perform the Services in a manner acceptable to the District, or who are determined by the District to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project or a threat to the safety of persons or property, shall be promptly removed from the Project by the Designer at the request of the District. The key additional personnel, engineers and consultants for performance of this Agreement are as follows: none.

3.3 Hiring of Consultants and Personnel.

3.3.1 Right to Hire or Employ. Designer shall have the option, unless District objects in writing after notice, to employ at its expense architects, engineers, experts or other consultants qualified and licensed to render services in connection with the planning and/or administration of the Project, and to delegate to them such duties as Designer may delegate without relieving Designer from administrative or other responsibility under this Agreement. Designer shall be responsible for the coordination and cooperation of Designer's architects, engineers, experts or other consultants. All consultants, including changes in consultants, shall be subject to approval by District in its sole and reasonable discretion. Designer shall notify District of the identity of all consultants at least fourteen (14) days prior to their commencement of work to allow District to review their qualifications and approve to their participation on the Project in its sole and reasonable discretion.

3.3.2 Qualification and License. All architects, engineers, experts and other consultants retained by Designer in performance of this Agreement shall be qualified to perform the Services assigned to them, and shall be licensed to practice in their respective professions, where required by law.

3.3.3 Standards and Insurance. All architects, engineers, experts and other consultants hired by Designer shall be required to meet all of the same standards and insurance requirements set forth in this Agreement, unless other standards or requirements are approved

by the District in writing. Unless changes are approved in writing by the District, Designer's agreements with its consultants shall contain a provision making them subject to all provisions stipulated in this Agreement.

3.3.4 Assignments or Staff Changes. Designer shall promptly obtain written District approval of any assignment, reassignment or replacement of such architects, engineers, experts and consultants, or of other staff changes of key personnel working on the Project. As provided in the Agreement, any changes in Designer's consultants and key personnel shall be subject to approval by District.

3.3.5 Draftsman and Clerical Support. Draftsmen and clerical personnel shall be retained by Designer at Designer's sole expense.

3.4 Standard of Care.

3.4.1 Standard of Care. Designer shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals qualified to perform the Services in the same discipline in the State of California, and shall be responsible to District for damages sustained by the District and delays to the Project as specified in the indemnification provision of this Agreement. Without limiting the foregoing, Designer shall be fully responsible to the District for any increased costs incurred by the District as a result of any such delays in the design or construction of the Project. Designer represents and maintains that it is skilled in the professional calling necessary to perform the Services. Designer warrants and represents that all of its employees, architects, engineers, experts and other consultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Designer represents that it, its employees, architects, engineers, experts and other consultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services assigned to or rendered by them and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Designer shall perform, at its own cost and expense and without reimbursement from the District, any services necessary to correct errors or omissions which are caused by the Designer's failure to comply with the standard of care provided for herein.

3.4.2 Performance of Employees. Any employee or consultant who is determined by the District to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee or consultant who fails or refuses to perform the Services in a manner acceptable to the District, shall be promptly removed from the Project by the Designer and shall not be re-employed to perform any of the Services or to work on the Project.

3.5 Laws and Regulations.

3.5.1 Knowledge and Compliance. Designer shall keep itself fully informed of and in compliance with all applicable local, state and federal laws, rules and regulations in any manner affecting the performance of the Services or the Project, and shall give all notices required of the Designer by law. Designer shall be liable, pursuant to the standard of care and indemnification provisions of this Agreement, for all violations of such laws and regulations in connection with its Services. If the Designer performs any work knowing it to be contrary to such laws, rules and regulations, Designer shall be solely responsible for all costs arising therefrom. Designer shall defend, indemnify and hold District, its officials, officers, employees and agents

free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.5.2 Drawings and Specifications. Designer shall cause all drawings and specifications to conform to any applicable requirements of federal, state and local laws, rules and regulations, including the Uniform Building Code, in effect as of the time the drawings and specifications are prepared or revised during the latest phase of the Services described in Exhibit "A" attached hereto. Any significant revisions made necessary by changes in such laws, rules and regulations after this time may be compensated as Additional Services which were not known or reasonably should not have been known by Designer. Designer shall cause the necessary copies of such drawings and specifications to be filed with any governmental bodies with approval jurisdiction over the Project, in accordance with the Services described in Exhibit "A" attached hereto. For the preparation of all such drawings and specifications, the Designer shall use Computer Aided Design Drafting ("CADD") (e.g., AutoCAD) or other technology acceptable to the Designer and District.

3.5.3 Americans with Disabilities Act. Designer will use its best professional efforts to interpret all applicable federal, state and local laws, rules and regulations with respect to access, including those of the Americans with Disabilities Act ("ADA"). Designer shall inform District of the existence of inconsistencies of which it is aware or reasonably should be aware between federal and state accessibility laws, rules and regulations, as well as any other issues which are subject to conflicting interpretations of the law, and shall provide the District with its interpretation of such inconsistencies and conflicting interpretations. Unless Designer brings such inconsistencies and conflicting interpretations to the attention of the District and requests District's direction on how to proceed, the Designer's interpretation of such inconsistencies and conflicting interpretations shall be the sole responsibility and liability of Designer, and the Designer shall correct all plans, specifications and other documents prepared for the Project at no additional cost if its interpretations are shown to be incorrect. In the event that the Designer request's District's direction on how to proceed with respect to any inconsistent and/or conflicting interpretation, the Designer shall be responsible to the District only pursuant to the indemnification provisions of this Agreement.

3.5.4 Permits, Approvals and Authorizations. Designer shall provide District with a list of all permits, approvals or other authorizations required for the Project from all federal, state or local governmental bodies with approval jurisdiction over the Project. Designer shall then assist the District in obtaining all such permits, approvals and other authorizations. The costs of such permits, approvals and other authorizations shall be paid by the District.

3.5.5 Water Quality Management and Compliance.

(a) Compliance with Water Quality Laws, Ordinances and Regulations. Designer shall keep itself and all subcontractors, staff, and employees fully informed of and in compliance with all local, state and federal laws, rules and regulations that may impact, or be implicated by the performance of the Services including, without limitation, all applicable provisions of the District's ordinances regulating water quality and storm water; the Federal Water Pollution Control Act (33 U.S.C. § 1251 *et seq*.); the California Porter-Cologne Water Quality Control Act (Cal Water Code §§ 13000-14950); and any and all regulations, policies, or permits issued pursuant to any such authority. Designer shall additionally comply with the lawful requirements of the District, and any other municipality, drainage district, or other local agency with jurisdiction over the location where the Services are to be conducted, regulating water quality and storm water discharges.

(b) Standard of Care. Designer warrants that all employees and subcontractors shall have sufficient skill and experience to perform the work assigned to them without impacting water quality in violation of the laws, regulations and policies described in Sections 3.5.5(a) of this Agreement. Designer further warrants that it, its employees and subcontractors will receive adequate training, as determined by the District, regarding these requirements as they may relate to the Services.

(c) Liability for Non-compliance.

(i) Indemnity: Failure to comply with laws, regulations, and ordinances listed in Sections 3.5.5(a) of this Agreement is a violation of federal and state law. Notwithstanding any other indemnity contained in this Agreement, Designer agrees to indemnify and hold harmless the District, its officials, officers, agents, employees and authorized volunteers from and against any and all claims, demands, losses or liabilities of any kind or nature which the District, its officials, officers, agents, employees and authorized volunteers may sustain or incur for noncompliance with the laws, regulations, and ordinances listed above, arising out of or in connection with the Services, except for liability resulting from the sole established negligence, willful misconduct or active negligence of the District, its officials, officers, agents, employees or authorized volunteers.

(ii) Defense: District reserves the right to defend any enforcement action or civil action brought against the District for Designer's failure to comply with any applicable water quality law, regulation, or policy. Designer hereby agrees to be bound by, and to reimburse the District for the costs associated with, any settlement reached between the District and the relevant enforcement entity.

(iii) Damages: District may seek damages from Designer for delay in completing the Services caused by Designer's failure to comply with the laws, regulations and policies described in Section 3.5.5(a) of this Agreement, or any other relevant water quality law, regulation, or policy.

3.6 Independent Contractor.

3.6.1 Control and Payment of Subordinates. District retains Designer on an independent contractor basis and Designer is not an employee of District. Designer is not an employee for state tax, federal tax or any other purpose, and is not entitled to the rights or benefits afforded to District's employees. Any additional personnel performing the Services under this Agreement on behalf of Designer shall also not be employees of District, and shall at all times be under Designer's exclusive direction and control. Designer shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Designer shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.

3.7 Schedule of Services.

3.7.1 Designer Services. Designer shall fully and adequately complete the Services described in this Agreement and in Exhibit "A" attached hereto and incorporated herein by reference.

3.7.2 Timely Performance Standard. Designer shall perform all Services hereunder as expeditiously as is consistent with professional skill and care, as well as the orderly progress of the Project work so as not to be the cause, in whole or in part, of delays in the completion of the Project or in the achievement of any Project milestones, as provided herein. Specifically, Designer shall perform its Services so as to allow for the full and adequate completion of the Project within the time required by the District and within any completion schedules adopted for the Project. Designer agrees to coordinate with District's staff, contractors and consultants in the performance of the Services, and shall be available to District's staff, contractors and consultants at all reasonable times.

3.7.3 Performance Schedule. Designer shall prepare an estimated time schedule for the performance of Designer's Services, to be adjusted as the Project proceeds. Such schedule shall be subject to the District's review and approval, which approval shall not be unreasonably withheld, and shall include allowances for periods of time required for District's review and approval of submissions, and for approvals of authorities having jurisdiction over Project approval and funding. If District and Designer cannot mutually agree on a performance schedule, District shall have the authority to immediately terminate this Agreement. The schedule shall not be exceeded by Designer without the prior written approval of District. If the Designer's Services are not completed within the time provided by the agreed upon performance schedule, or any milestones established therein, it is understood, acknowledged and agreed that the District will suffer damage for which the Designer will be responsible pursuant to the indemnification provision of this Agreement.

3.7.4 Excusable Delays. Any delays in Designer's work caused by the following shall be added to the time for completion of any obligations of Designer: (1) the actions of District or its employees; (2) the actions of those in direct contractual relationship with District; (3) the actions of any governmental agency having jurisdiction over the Project; (4) the actions of any parties not within the reasonable control of the Designer; and (5) any act of God or other unforeseen occurrence not due to any fault or negligence on the part of Designer. Neither the District nor the Designer shall be liable for damages, liquidated or otherwise, to the other on account of such delays.

3.7.5 Request for Excusable Delay Credit. The Designer shall, within fifteen (15) calendar days of the beginning of any excusable delay, notify the District in writing of the causes of delay (unless District grants in writing a further period of time to file such notice prior to the date of final payment under the Agreement). District will then ascertain the facts and the extent of the delay, and grant an extension of time for completing the Services when, in its sole judgment, the findings of fact justify such an extension. The District's findings of fact thereon shall be final and conclusive on the parties. Extensions of time shall apply only to that portion of the Services affected by the delay and shall not apply to other portions of the Services not so affected. The sole remedy of Designer for extensions of time shall be an extension of the performance time at no cost to the District. If Additional Services are required as a result of an excusable delay, the parties shall mutually agree thereto pursuant to the Additional Services provision of this Agreement. Should Designer make an application for an extension of time, Designer shall submit evidence that the insurance policies required by this Agreement remain in effect during the requested additional period of time.

3.8 Additional Designer Services.

3.8.1 Request for Services. At District's request, Designer may be asked to perform services not otherwise included in this Agreement, not included within the basic services

listed in Exhibit “A” attached hereto, and/or not customarily furnished in accordance with generally accepted design practice.

3.8.2 Definition. As used herein, “Additional Services” mean: (1) any work which is determined by District to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary for the Designer to perform at the execution of this Agreement; or (2) any work listed as Additional Services in Exhibit “A” attached hereto. Designer shall not perform, nor be compensated for, Additional Services without prior written authorization from District and without an agreement between the District and Designer as to the compensation to be paid for such services. District shall pay Designer for any approved Additional Services, pursuant to the compensation provisions herein, so long as such services are not made necessary through the fault of Designer pursuant to the indemnification provision of this Agreement.

3.8.3 Examples of Additional Services. Such Additional Services shall not include any redesign or revisions to drawings, specifications or other documents when such revisions are necessary in order to bring such documents into compliance with applicable laws, rules, regulations or codes of which Designer was aware or should have been aware pursuant to the laws and regulations provision of this Agreement above. Such Additional Services may include, but shall not be limited to:

(a) Separately Bid Portions of Project. Plan preparation and/or administration of work on portions of the Project separately bid.

(b) Furniture and Interior Design. Assistance to District, if requested, for the selection of moveable furniture, equipment or articles which are not included in the Construction Documents.

(c) Fault of Contractor. Services caused by delinquency, default or insolvency of contractor, or by major defects in the work of the contractor, provided that any such services made necessary by the failure of Designer to detect and report such matters when it reasonably should have done so shall not be compensated.

(d) Inconsistent Approvals or Instructions. Revisions in drawings, specifications or other documents when such revisions are inconsistent with written approvals or instructions previously given and are due to causes beyond the control of Designer.

(e) Legal Proceedings. Serving as an expert witness on District's behalf or attending legal proceedings to which the Designer is not a party.

(f) Damage Repair. Supervision of repair of damages to any structure.

(g) Extra Environmental Services. Additional work required for environmental conditions (e.g. asbestos or site conditions) not already contemplated within the Designer's services for the Project.

3.9 District Responsibilities. District’s responsibilities shall include the following:

3.9.1 Data and Information. District shall make available to Designer all necessary data and information concerning the purpose and requirements of the Project, including scheduling and budget limitations, objectives, constraints and criteria. As part of the

budget limitation information, the District shall provide the Designer with a preliminary construction budget ("District's Preliminary Construction Budget").

3.9.2 Project Survey. If required pursuant to the scope of the Project and if requested by Designer, District shall furnish Designer with, or direct Designer to procure at District's expense, a survey of the Project site prepared by a registered surveyor or civil engineer, any other record documents which shall indicate existing structures, land features, improvements, sewer, water, gas, electrical and utility lines, topographical information and boundary dimensions of the site, and any other such pertinent information.

3.9.3 Bid Phase. Distribute Construction Documents to bidders and conduct the opening and review of bids for the Project.

3.9.4 Testing. Retain consultant(s) to conduct chemical, mechanical, soils, geological or other tests required for proper design of the Project, and furnish such surveys, borings, test pits, and other tests as may be necessary to reveal conditions of the site which must be known to determine soil condition or to ensure the proper development of the required drawings and specifications.

3.9.5 Required Inspections and Tests. Retain consultant(s) to conduct materials testing and inspection or environmental/hazardous materials testing and inspection pursuant to any applicable laws, rules or regulations.

3.9.6 Fees of Reviewing or Licensing Agencies. Directly pay or reimburse the payment of all fees required by any reviewing or licensing agency, or other agency having approval jurisdiction over the Project.

3.9.7 District's Representative. The District hereby designates the District Manager, or his or her designee, to act as its representative for the performance of this Agreement ("District's Representative"). District's Representative shall have the power to act on behalf of the District for all purposes under this Contract. The District Manager hereby designates Melissa Pieri, Engineering Manager/District Engineer, or his or her designee, as the District's contact for the implementation of the Services hereunder. Contractor shall not accept direction or orders from any person other than the District's Representative or his or her designee.

3.9.8 Review and Approved Documents. Review all documents submitted by Designer, including change orders and other matters requiring approval by the District Council or other officials. District shall advise Designer of decisions pertaining to such documents within a reasonable time after submission, so as not to cause unreasonable delay as provided in the excusable delay provisions of this Agreement above.

3.10 Compensation.

3.10.1 Designer's Compensation for Basic Services. District shall pay to Designer, for the performance of all Services rendered under this Agreement, the total not to exceed amount of Eleven Thousand Dollars ($11,000.00) ("Total Compensation"). This Total Compensation amount shall be based upon, and may be adjusted according to, the fee schedule and related terms and conditions attached hereto as Exhibit "A" and incorporated herein by reference. The Total Compensation, as may be adjusted upon mutual agreement, shall constitute complete and adequate payment for Services under this Agreement.

3.10.2 Payment for Additional Services. At any time during the term of this Agreement, District may request that Designer perform Additional Services. As used herein, Additional Services means any work which is determined by District to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Any additional work in excess of this amount must be approved by the District. If authorized, such Additional Services will be compensated at the rates and in the manner set forth in Exhibit "C" attached hereto and incorporated herein by reference, unless a flat rate or some other form of compensation is mutually agreed upon by the parties. If District requires Designer to hire consultants to perform any Additional Services, Designer shall be compensated therefore at the rates and in the manner set forth in Exhibit "C" attached hereto and incorporated herein by reference, unless a flat rate or some other form of compensation is mutually agreed upon by the parties. District shall have the authority to review and approve the rates of any such consultants. In addition, Designer shall be reimbursed for any expenses incurred by such consultants pursuant to the terms and conditions of Section 3.10.3.

3.10.3 Reimbursable Expenses. Reimbursable expenses are in addition to compensation for the Services and Additional Services. Designer shall not be reimbursed for any expenses unless authorized in writing by District, which approval may be evidenced by inclusion in Exhibit "C" attached hereto. Such reimbursable expenses shall include only those expenses which are reasonably and necessarily incurred by Designer in the interest of the Project. Designer shall be required to acquire prior written consent in order to obtain reimbursement for the following: (1) extraordinary transportation expenses incurred in connection with the Project; (2) out-of-town travel expenses incurred in connection with the Project; (3) fees paid for securing approval of authorities having jurisdiction over the Project; (4) bid document duplication costs in excess of $1,000; and (5) other costs, fees and expenses in excess of $1,000.

3.10.4 Payment to Designer. Designer's compensation and reimbursable expenses shall be paid by District to Designer no more often than monthly. Such periodic payments shall be made based upon the percentage of work completed, and in accordance with the phasing and funding schedule provided in Exhibit "B" and the compensation rates indicated in Exhibit "C" attached hereto and incorporated herein by reference. In order to receive payment, Designer shall present to District an itemized statement which indicates Services performed, percentage of Services completed, method for computing the amount payable, and the amount to be paid. The statement shall describe the amount of Services provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement, as well as those expenses for which reimbursement is requested for that statement period. The amount paid to Designer shall never exceed the percentage amounts authorized by the phasing and funding schedule located in Exhibit "B" attached hereto. District shall, within thirty (30) days of receiving such statement, review the statement and pay all approved charges thereon pursuant to the provisions of Civil Code Section 3320. Disputed amounts shall be resolved by the parties in a mutually agreeable manner.

Payments made for Additional Services shall be made in installments, not more often than monthly, proportionate to the degree of completion of such services or in such other manner as the parties shall specify when such services are agreed upon, and in accordance with any authorized fee or rate schedule. In order to receive payment, Designer shall present to District an itemized statement which indicates the Additional Services performed, percentage of Additional Services completed, method for computing the amount payable, and the amount to be paid. The statement shall describe the amount of Additional Services provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. District shall, within thirty (30) days of receiving such statement, review

the statement and pay all approved charges thereon pursuant to the provisions of Civil Code Section 3320. Disputed amounts shall be resolved by the parties in a mutually agreeable manner.

Upon cancellation or termination of this Agreement, Designer shall be compensated as set forth in the termination provision herein.

3.10.5 Withholding Payment to Designer. The District may withhold payment, in whole or in part, to the extent reasonably necessary to protect the District from claims, demands, causes of action, costs, expenses, liabilities, losses, damages, or injuries of any kind to the extent arising out of or caused by the negligence, recklessness, or willful misconduct protected under the indemnification provisions of this Agreement. Failure by District to deduct any sums from a progress payment shall not constitute a waiver of the District's right to such sums. The District may keep any moneys which would otherwise be payable at any time hereunder and apply the same, or so much as may be necessary therefor, to the payment of any expenses, losses, or damages as determined by the District, incurred by the District for which Designer is liable under the Agreement or state law. Payments to the Designer for compensation and reimbursable expenses due shall not be contingent on the construction, completion or ultimate success of the Project. Payment to the Designer shall not be withheld, postponed, or made contingent upon receipt by the District of offsetting reimbursement or credit from parties not within the Designer's reasonable control.

3.10.6 Prevailing Wages. Designer is aware of the requirements of California Labor Code Sections 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Designer agrees to fully comply with and to require its consultants to fully comply with such Prevailing Wage Laws. District shall provide Designer with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Designer shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Designer's principal place of business and at the Project site. Designer shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure of the Designer or its consultants to comply with the Prevailing Wage Laws. It shall be mandatory upon the Designer and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Section 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Sections 1777.1).

3.10.7 Registration. If the Services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Designer and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Designer shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Designer's sole responsibility to comply with all applicable registration and labor compliance requirements.

3.11 Notice to Proceed.

Designer shall not proceed with performance of any Services under this Agreement unless and until the District provides a written notice to proceed.

3.12 Termination, Suspension and Abandonment.

3.12.1 Grounds for Termination; Designer's Termination for Cause. District hereby reserves the right to suspend or abandon, at any time and for any reason, all or any portion of the Project and the construction work thereon, or to terminate this Agreement at any time with or without cause. Designer shall be provided with at least seven (7) days advanced written notice of such suspension, abandonment or termination. In the event of such suspension, abandonment or termination, Designer shall be paid for Services and reimbursable expenses rendered up to the date of such suspension, abandonment or termination, pursuant to the schedule of payments provided for in this Agreement, less any claims against or damages suffered by District as a result of the default, if any, by Designer. Designer hereby expressly waives any and all claims for damages or compensation arising under this Agreement, except as set forth herein, in the event of such suspension, abandonment or termination. Designer may terminate this Agreement for substantial breach of performance by the District such as failure to make payment to Designer as provided in this Agreement.

3.12.2 District's Suspension of Work. If Designer's Services are suspended by District, District may require Designer to resume such Services within ninety (90) days after written notice from District. When the Project is resumed, the Total Compensation and schedule of Services shall be equitably adjusted upon mutual agreement of the District and Designer.

3.12.3 Documents and Other Data. Upon suspension, abandonment or termination, Designer shall provide to District all preliminary studies, sketches, working drawings, specifications, computations, and all other Project Documents, as defined below, to which District would have been entitled at the completion of Designer's Services under this Agreement. Upon payment of the amount required to be paid to Designer pursuant to the termination provisions of this Agreement, District shall have the rights, as provided in this Agreement hereinafter, to use such Project Documents prepared by or on behalf of Designer under this Agreement. Designer shall make such documents available to District upon request and without additional compensation other than as may be approved as a reimbursable expense.

3.12.4 Employment of other Designers. In the event this Agreement is terminated in whole or in part as provided herein, District may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

3.13 Ownership and Use of Documents; Confidentiality.

3.13.1 Ownership. All plans, specifications, original or reproducible transparencies of working drawings and master plans, preliminary sketches, design presentation drawings, structural computations, estimates and any other documents prepared pursuant to this Agreement, including, but not limited to, any other works of authorship fixed in any tangible medium of expression such as writings, physical drawings and data magnetically or otherwise recorded on computer diskettes (hereinafter referred to as the "Project Documents") shall be and remain the property of District. Although the official copyright in all Project Documents shall remain with the Designer or other applicable subcontractors or consultants, the Project Documents shall be the property of District whether or not the work for which they were made is

executed or completed. Within thirty (30) calendar days following completion of the Project, Designer shall provide to District copies of all Project Documents required by District. In addition, Designer shall retain copies of all Project Documents on file for a minimum of fifteen (15) years following completion of the Project, and shall make copies available to District upon the payment of reasonable duplication costs. Before destroying the Project Documents following this retention period, Designer shall make a reasonable effort to notify District and provide District with the opportunity to obtain the documents.

3.13.2 Right to Use. Designer grants to District the right to use and reuse all or part of the Project Documents, at District's sole discretion and with no additional compensation to Designer, for the following purposes:

(a) The construction of all or part of this Project.

(b) The repair, renovation, modernization, replacement, reconstruction or expansion of this Project at any time;

(c) The construction of another project by or on behalf of the District for its ownership and use;

District is not bound by this Agreement to employ the services of Designer in the event such documents are used or reused for these purposes. District shall be able to use or reuse the Project Documents for these purposes without risk of liability to the Designer or third parties with respect to the condition of the Project Documents, and the use or reuse of the Project Documents for these purposes shall not be construed or interpreted to waive or limit District's right to recover for latent defects or for errors or omissions of the Designer.

Any use or reuse by District of the Project Documents on any project other than this Project without employing the services of Designer shall be at District's own risk with respect to third parties. If District uses or reuses the Project Documents on any project other than this Project, it shall remove the Designer's seal from the Project Documents and hold harmless Designer and its officers, directors, agents and employees from claims arising out of the negligent use or re-use of the Project Documents on such other project.

3.13.3 License. This Agreement creates a non-exclusive and perpetual license for District to copy, use, modify or reuse any and all Project Documents and any intellectual property rights therein. Designer shall require any and all subcontractors and consultants to agree in writing that District is granted a non-exclusive and perpetual license for the work of such subcontractors or consultants performed pursuant to this Agreement.

3.13.4 Right to License. Designer represents and warrants that Designer has the legal right to license any and all copyrights, designs and other intellectual property embodied in the Project Documents that Designer prepares or causes to be prepared pursuant to this Agreement. Designer shall indemnify and hold District harmless pursuant to the indemnification provisions of this Agreement for any breach of this Section. Designer makes no such representation and warranty in regard to previously prepared designs, plans, specifications, studies, drawings, estimates or other documents that were prepared by design professionals other than Designer and provided to Designer by District.

3.13.5 Confidentiality. All Project Documents, either created by or provided to Designer in connection with the performance of this Agreement, shall be held confidential by

Designer to the extent they are not subject to disclosure pursuant to the Public Records Act. All Project Documents shall not, without the written consent of District, be used or reproduced by Designer for any purposes other than the performance of the Services. Designer shall not disclose, cause or facilitate the disclosure of the Project Documents to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Designer which is otherwise known to Designer or is generally known, or has become known, to the related industry shall be deemed confidential. Designer shall not use District's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the written consent of District.

3.14 Indemnification.

3.14.1 Scope of Indemnity. To the fullest extent permitted by law, Designer shall defend, indemnify and hold the District, its officials, officers, employees, volunteers and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Designer, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Designer's Services, the Project or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent Designer's Services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Designer.

3.14.2 Additional Indemnity Obligations. To the fullest extent permitted by law, Designer shall defend, with counsel of District's choosing and at Designer's own cost, expense and risk, any and all claims, suits, actions or other proceedings of every kind covered by Section 3.14.1 that may be brought or instituted against District or its officials, officers, employees, volunteers and agents. Designer shall pay and satisfy any judgment, award or decree that may be rendered against District or its officials, officers, employees, volunteers and agents as part of any such claim, suit, action or other proceeding. Designer shall also reimburse District for the cost of any settlement paid by District or its officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for District's attorney's fees and costs, including expert witness fees. Designer shall reimburse District~~,~~ and its officials, officers, employees, agents, and/or volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Designer's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the District, its officials~~,~~ officers, employees, agents or volunteers.

3.15 Insurance. Designer shall not commence work under this Agreement until it has provided evidence satisfactory to the District that it has secured all insurance required under this Section. In addition, Designer shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the District that the subconsultant has secured all insurance required under this section.

3.15.1 Types of Insurance Required. As a condition precedent to the effectiveness of this Agreement for work to be performed hereunder, and without limiting the indemnity provisions of the Agreement, Designer shall, at its expense, procure and maintain in full force and effect for the duration of the Agreement the following policies of insurance. If the

existing policies do not meet the insurance requirements set forth herein, Designer agrees to amend, supplement or endorse the policies to do so.

3.15.2 Additional Insured. The District, its officials, officers, employees, agents, and volunteers shall be named as additional insureds on Designer's and its subconsultants' policies of commercial general liability and automobile liability insurance using the endorsements and forms specified herein or exact equivalents.

3.15.3 Commercial General Liability

(a) The Designer shall take out and maintain, during the performance of all work under this Agreement, in amounts not less than specified herein, Commercial General Liability Insurance, in a form and with insurance companies acceptable to the District.

(b) Coverage for Commercial General Liability insurance shall be at least as broad as the following: Insurance Services Office Commercial General Liability coverage (Occurrence Form CG 00 01) or exact equivalent. Commercial General Liability Insurance must include coverage for the following:

(1) Bodily Injury and Property Damage

(2) Personal Injury/Advertising Injury

(3) Premises/Operations Liability

(4) Products/Completed Operations Liability

(5) Aggregate Limits that Apply per Project

(6) Explosion, Collapse and Underground (UCX) exclusion deleted

(7) Contractual Liability with respect to this Contract

(8) Broad Form Property Damage

(9) Independent Contractors Coverage

(c) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; (3) products/completed operations liability; or (4) contain any other exclusion contrary to the Agreement.

(d) The policy shall give District, the District Council and each member of the District Council, its officers, employees, agents and District designated volunteers additional insured status using ISO endorsement forms CG 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(e) The general liability program may utilize either deductibles or provide coverage excess of a self-insured retention, subject to written approval by the District, and provided that such deductibles shall not apply to the District as an additional insured.

3.15.4 Automobile Liability

(a) At all times during the performance of the work under this Agreement, the Designer shall maintain Automobile Liability Insurance for bodily injury and property damage including coverage for owned, non-owned and hired vehicles, in a form and with insurance companies acceptable to the District.

(b) Coverage for automobile liability insurance shall be at least as broad as Insurance Services Office Form Number CA 00 01 covering automobile liability (Coverage Symbol 1, any auto).

(c) The policy shall give District, the District Council and each member of the District Council, its officers, employees, agents and District designated volunteers additional insured status.

(d) Subject to written approval by the District, the automobile liability program may utilize deductibles, provided that such deductibles shall not apply to the District as an additional insured, but not a self-insured retention.

3.15.5 Workers' Compensation/Employer's Liability

(a) Designer certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(b) To the extent Designer has employees at any time during the term of this Agreement, at all times during the performance of the work under this Agreement, the Designer shall maintain full compensation insurance for all persons employed directly by him/her to carry out the work contemplated under this Agreement, all in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any acts amendatory thereof, and Employer's Liability Coverage in amounts indicated herein. Designer shall require all subconsultants to obtain and maintain, for the period required by this Agreement, workers' compensation coverage of the same type and limits as specified in this Section.

3.15.6 Professional Liability (Errors and Omissions)

(a) At all times during the performance of the work under this Agreement the Designer shall maintain professional liability or Errors and Omissions insurance appropriate to its profession, in a form and with insurance companies acceptable to the District and in an amount indicated herein. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Designer. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

3.15.7 Minimum Policy Limits Required

(a) The following insurance limits are required for the Agreement:

	Combined Single Limit
Commercial General Liability	$1,000,000 per occurrence/ $2,000,000 aggregate for bodily injury, personal injury, and property damage
Automobile Liability	$1,000,000 per occurrence for bodily injury and property damage
Employer's Liability	$1,000,000 per occurrence
Professional Liability	$1,000,000 per claim and aggregate (errors and omissions)

(b) Defense costs shall be payable in addition to the limits.

(c) Requirements of specific coverage or limits contained in this Section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of any coverage normally provided by any insurance. Any available coverage shall be provided to the parties required to be named as Additional Insured pursuant to this Agreement.

3.15.8 Evidence Required

(a) Prior to execution of the Agreement, the Designer shall file with the District evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. Such evidence shall include original copies of the ISO CG 00 01 (or insurer's equivalent) signed by the insurer's representative and Certificate of Insurance (Acord Form 25-S or equivalent), together with required endorsements. All evidence of insurance shall be signed by a properly authorized officer, agent, or qualified representative of the insurer and shall certify the names of the insured, any additional insureds, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, and the expiration date of such insurance.

3.15.9 Policy Provisions Required

(a) Designer shall provide the District at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Designer shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Designer shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the District at least ten (10) days prior to the effective date of cancellation or expiration.

(b) The Commercial General Liability Policy and Automobile Policy shall each contain a provision stating that Designer's policy is primary insurance and that any insurance, self-insurance or other coverage maintained by the District or any named insureds shall not be called upon to contribute to any loss.

(c) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Designer shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Designer shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(d) All required insurance coverages, except for the professional liability coverage, shall contain or be endorsed to waiver of subrogation in favor of the District, its officials, officers, employees, agents, and volunteers or shall specifically allow Designer or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Designer hereby waives its own right of recovery against District, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

(e) The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Designer from liability in excess of such coverage, nor shall it limit the Designer's indemnification obligations to the District and shall not preclude the District from taking such other actions available to the District under other provisions of the Agreement or law.

3.15.10 Qualifying Insurers

(a) All policies required shall be issued by acceptable insurance companies, as determined by the District, which satisfy the following minimum requirements: Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and admitted to transact in the business of insurance in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.

3.15.11 Additional Insurance Provisions

(a) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Designer, and any approval of said insurance by the District, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Designer pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(b) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, District has the right but not the duty to obtain the insurance it deems necessary and any premium paid by District will be promptly reimbursed by Designer or District will withhold amounts sufficient to pay premium from Designer payments. In the alternative, District may cancel this Agreement.

(c) The District may require the Designer to provide complete copies of all insurance policies in effect for the duration of the Project.

(d) Neither the District nor the District Council, nor any member of the District Council, nor any of the officials, officers, employees, agents or volunteers shall be personally responsible for any liability arising under or by virtue of this Agreement.

3.15.12 Subconsultant Insurance Requirements

(a) Designer shall not allow any subcontractors or subconsultants to commence work on any subcontract until they have provided evidence satisfactory to the District that they have secured all insurance required under this Section. Policies of commercial general liability insurance provided by such subcontractors or subconsultants shall be endorsed to name the District as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Designer, District may approve different scopes or minimum limits of insurance for particular subcontractors or subconsultants.

3.16 Records.

Designer shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Designer shall allow a representative of District during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Designer shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of five (5) years from the date of final payment under this Agreement.

3.17 Standardized Manufactured Items.

Designer shall cooperate and consult with District in the use and selection of manufactured items on the Project, including but not limited to, paint, hardware, plumbing, mechanical and electrical equipment, fixtures, roofing materials and floor coverings. All such manufactured items shall be standardized to District's criteria to the extent such criteria do not interfere with building design.

3.18 Limitation of Agreement.

This Agreement is limited to and includes only the work included in the Project described herein. Any additional or subsequent construction at the site of the Project, or at any other District site, will be covered by, and be the subject of, a separate Agreement for design services between District and the designer chosen therefor by District.

3.19 Mediation.

Disputes arising from this Agreement may be submitted to mediation if mutually agreeable to the parties hereto. The type and process of mediation to be utilized shall be subject to the mutual agreement of the parties.

3.20 Successors and Assigns.

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each party to this Agreement. However, Designer shall not assign or transfer by operation of law or otherwise any or all of its rights,

burdens, duties or obligations without the prior written consent of District. Any attempted assignment without such consent shall be invalid and void.

3.21 Asbestos Certification.

Designer shall certify to District, in writing and under penalty of perjury, that to the best of its knowledge, information and belief no asbestos-containing material or other material deemed to be hazardous by the state or federal government was specified as a building material in any construction document that the Designer prepares for the Project. Designer shall require all consultants who prepare any other documents for the Project to submit the same written certification. Designer shall also assist the District in ensuring that contractors provide District with certification, in writing and under penalty of perjury, that to the best of their knowledge, information and belief no material furnished, installed or incorporated into the Project contains asbestos or any other material deemed to be hazardous by the state or federal government. These certifications shall be part of the final Project submittal. Designer shall include statements in its specifications that materials containing asbestos or any other material deemed to be hazardous by the state or federal government are not to be included.

3.22 No Third Party Rights.

This Agreement shall not create any rights in, or inure to the benefits of, any third party except as expressly provided herein.

3.23 Governing Law.

This Agreement shall be construed in accordance with, and governed by, the laws of the State of California. Venue shall be in Sacramento County.

3.24 Exhibits and Recitals.

All exhibits and recitals contained herein and attached hereto are material parts of this Agreement and are incorporated as if fully set forth.

3.25 Severability.

Should any provision in the Agreement be held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall continue in full force and effect.

3.26 Non-Waiver.

None of the provisions of this Agreement shall be considered waived by either party, unless such waiver is specifically specified in writing.

3.27 Safety.

Designer shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Designer shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of its employees, consultant and subcontractors appropriate to the nature of the work and the conditions under which the work is to be performed.

3.28 Harassment Policy.

Designer shall provide a copy of the District's Harassment Policy to each of its employees assigned to perform the tasks under this Agreement. Designer shall submit to the District's Personnel Manager a statement signed by each of its employees who are assigned to perform the Services under this Agreement certifying receipt of District's Harassment Policy and certifying that they have read the Harassment Policy. A finding by the District that any of Designer's employees has harassed a District employee shall be grounds for appropriate discipline, up to and including such employee's removal from performance of this Agreement at District's request.

3.29 Delivery of Notices.

All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

DISTRICT:	CONSULTANT:
Citrus Heights Water District	Warren Consulting Engineers, Inc.
6230 Sylvan Road	1117 Windfield Way, Suite 110
Citrus Heights, California 95610	El Dorado Hills, California 95762
Attn: Melissa Pieri, PE	Attn: Anthony Tassano, PE

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.30 Time of Essence.

Time is of the essence for each and every provision of this Agreement.

3.31 District's Right to Employ Other Consultants.

District reserves right to employ other consultants, including designers, in connection with this Project or other projects.

3.32 Prohibited Interests.

3.32.1 Solicitation. Designer maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Designer, to solicit or secure this Agreement. Further, Designer warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Designer, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, District shall have the right to rescind this Agreement without liability.

3.32.2 Conflict of Interest. For the term of this Agreement, no director, official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.33 Equal Opportunity Employment.

Designer represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or any other classification protected by federal or state law. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Designer shall also comply with all relevant provisions of District's minority business enterprise program, affirmative action plan or other related programs or guidelines currently in effect or hereinafter enacted.

3.34 Labor Certification.

By its signature hereunder, Designer certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.

3.35 Subcontracting.

As specified in this Agreement, Designer shall not subcontract any portion of the Services required by this Agreement, except as expressly stated herein, without prior written approval of District. Subcontracts, if any, shall contain a provision making them subject to each and every provision of this Agreement.

3.36 Supplemental Conditions.

Any supplemental conditions shall be attached as an exhibit to this Agreement, and that exhibit shall be incorporated herein by reference.

3.37 Entire Agreement.

This Agreement, with its exhibits, contains the entire agreement of the parties hereto, and supersedes any and all other prior or contemporaneous negotiations, understandings and oral or written agreements between the parties hereto. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. Furthermore, any modification of this Agreement shall only be effective if in writing signed by all parties hereto.

[SIGNATURES ON FOLLOWING PAGE]

SIGNATURE PAGE FOR DESIGN SERVICES AGREEMENT BETWEEN THE CITRUS HEIGHTS WATER DISTRICT AND WARREN CONSULTING ENGINEERS, INC.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

CITRUS HEIGHTS WATER DISTRICT	WARREN CONSULTING ENGINEERS, INC.
By: _____	By: _____
Hilary M. Straus	
General Manager	Its: _____
	Printed Name: _____
	Federal ID No. _____
	Business License Number _____ (City of _____)

EXHIBIT “A”

DESIGNER’S SCOPE OF SERVICES

Warren Consulting Engineers, Inc.

October 11, 2017

email: mpieri@chwd.org

Missy Pieri
District Engineer
Citrus Heights Water District
6230 Sylvan Road
Citrus Heights, CA 95611

RE: PROPOSAL FOR ENGINEERING SERVICES FOR MICHIGAN DRIVE 6" AND 8" WATER MAINS

Dear Missy:
We are pleased to submit for your review and consideration our proposal for the above referenced project. The scope of work consists of:

1. **Topographic Survey**
   A. Prepare topographic survey of project area, including property lines and easements. See attached sketch.
   B. CAD Data reduction to produce finished drawing.
   C. Title Report, if required, will be ordered from the title company as a reimbursable expense.

2. **Schematic Design Phase**
   A. Review existing conditions and survey for conformance.
   B. Meet with CHWD to finalize route.

3. **Design Development Phase**
   A. Prepare design development drawings for water line replacement on Pleasant View Drive.
   B. Submit plans to CHWD for review and comments prior to beginning construction documents.

4. **Construction Document Phase**
   A. Prepare construction documents for the water line extension. The plans will contain:
      1. Topographic survey.
      2. Horizontal control plan.
      3. Water line plans and profiles per CHWD standards.
      4. Details and sections.
   B. Revise drawings as needed to obtain approval from City of Citrus Heights, Sacramento Metro Fire Department and CHWD. CHWD to route plans for signatures.

Proposed fee for above scope of work:

Topographic Survey:	$2,500.00
Schematic Design:	$1,000.00
Design Development:	$2,500.00
Construction Documents:	$5,000.00
Sub-Total Fee:	**$11,000.00**

Items not included in this proposal are:

1. Agency fees.
2. Arborist Report.
3. Construction Management services.
4. Construction Inspection.
5. Environmental Process Applications, Permits, Hearings, etc.
6. Soils investigation and testing.
7. Easements
8. Storm Water Pollution Prevention Plan (not required).
9. Construction Staking
10. Title Reports (if required)

Billing will be on a monthly basis for work completed within that calendar month. Payment shall be made within 30 days of receiving the billing statement.

If this proposal is acceptable, please sign and return one copy.

Sincerely,

Accepted: _____

Anthony J. Tassano, P.E.

Date: _____

AJT/tlb

17P.377

TOPOGRAPHIC SURVEY CHECKLIST **DATE: 10/11/17**

TO: Missy Pieri
PROJECT: Survey for Michigan Drive 6 Inch Water Main
LOCATION:
APN:
OWNER: Citrus Heights Water District
ADDRESS:

ITEMS NEEDED FROM OWNER

☒ 1. Title Report – **IF REQUIRED**

☐ 2. Permission to Enter Site

☐ 3. Contact Person and Phone Number

☒ 4. CHWD to provide as built or design drawings of existing facilities on-site if available. **NEEDED WITH NOTICE TO PROCEED**

DRAWINGS

☒ 5. Scale of finished drawing shall be 1" = 20'.

☒ 6. Finish drawing shall be a signed bond paper plot.

☒ 7. CD AutoCAD disk, 2014 Release.

ELEVATION BASIS

☒ 8. Based on County/City benchmark.

☐ 9. Based on previous survey.

☐ 10. Assumed elevation.

BOUNDARY

☒ 11. Property line bearings, dimensions, reference points, and other pertinent data.

☒ 12 Locate and identify monuments and markers found.

☐ 13. Set a monument at each change in boundary course when no monument is existing, and file record survey with the County.

☒ 14. Indicate easements, rights of way, and encroachments on and immediately adjacent to the right of way.

PROJECT: Michigan Drive 6 Inch Water Mains Date: 10/11/17

☒ 15. Boundary will be as shown from record information.

☒ 16. Establish two temporary benchmarks within the area surveyed.

TOPOGRAPHY

☒ 17. Contour interval shall be 1 foot, in nonpervious areas.

☒ 18. Point elevation grid interval shall be 50 feet, approximate.

☒ 19. Indicate special point elevations as may be required to provide complete land surface picture (i.e., high points, swales, etc.).

☒ 20. Indicate surface water conditions including ditches, drainage channels, ponds, and natural courses.

☐ 21. Other: _____

PLANIMETRIC

☐ 22. Location and floor elevation of all permanent structures, at all exterior doors.

☐ 23. Location and floor elevation of all permanent structures, at all exterior doors at building elevation.

☒ 24. Indicate miscellaneous walks, roads, structures, paving, fences, etc.

☐ 25. Show individual trees with diameters larger than 4 inches. If trees are numerous, indicate perimeter of dripline.

☒ 26. Ground elevation at tree trunk.

☐ 27. Indicate tree dripline, ground elevation at four quadrants of tree dripline.

☒ 28. Indicate tree dripline, no ground elevation.

☒ 29. Show location and elevation of all right of way improvements, such as curbs, gutters, walks, and edge of paving, and centerline. Survey to extend 10' behind back of curb along all streets being surveyed.

☒ 30. Show above ground utilities and elevation of top of subsurface utility structures.

PROJECT: Michigan Drive 6 Inch Water Mains Date: 10/11/17

UNDERGROUND

☒ 31. Indicate size, location and invert elevation of accessible subsurface piping and conduit including abandoned lines.

☒ 32. Indicate size, location and invert elevation of subsurface piping and conduit available in existing records including abandoned lines.

☐ 33. Indicate size, location and type of construction of visible wells, septic tanks, pumps, basements and similar subsurface improvements, active or abandoned.

☐ 34. Indicate areas of irrigation utilizing subsurface systems, showing system layout where available.

☐ 35. Information on subsurface improvements within street right of way as outlined in Item 29.

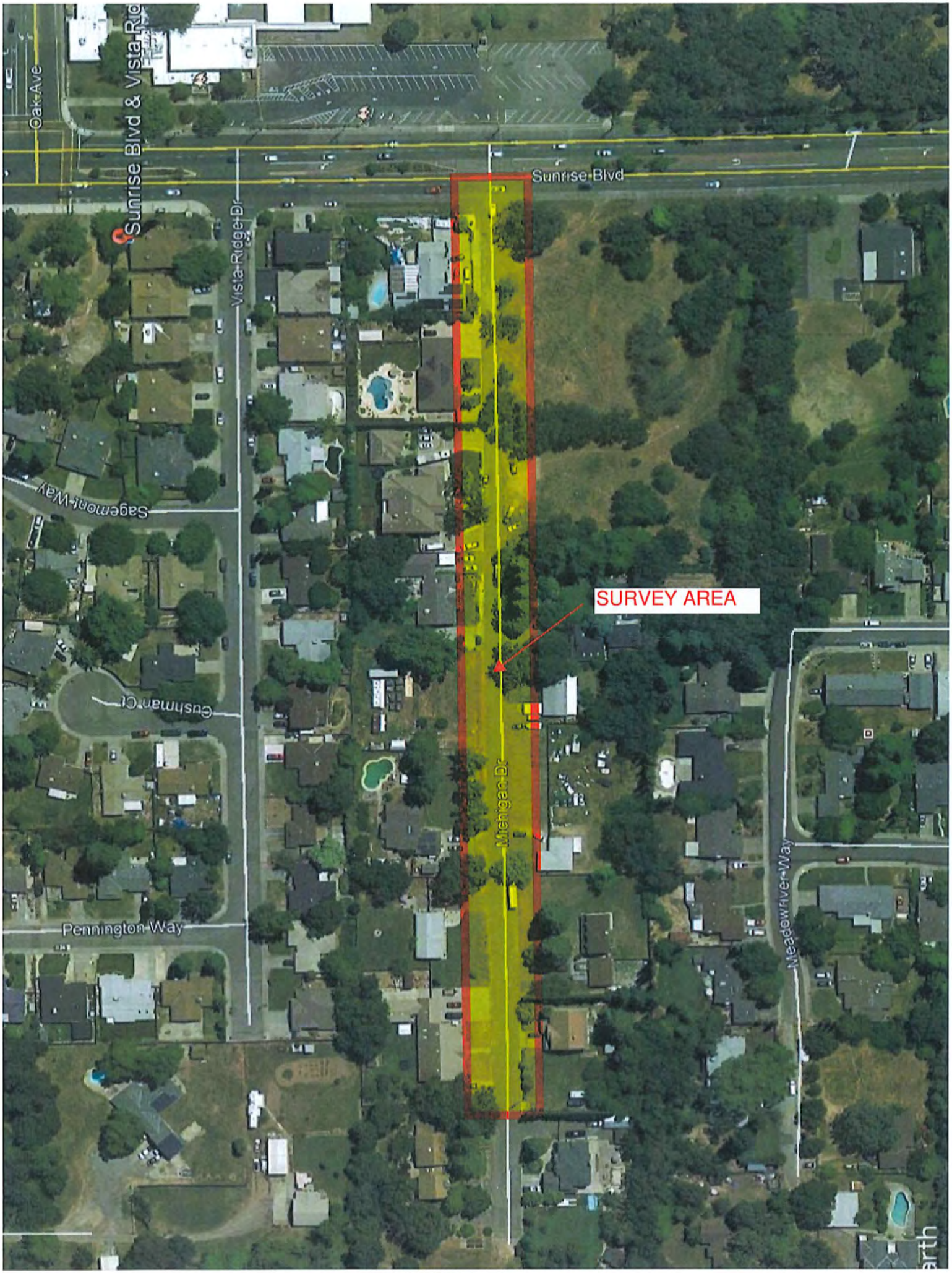
☐ 36. Information on subsurface improvements within street right of way as outlined in Item 30.

☐ 37. Owner to provide as built or design drawings of existing facilities on-site, if available.

☐ 38. Other:

☒ 39. See attached sketch.
☐ 40. See attached material.
☐ 41. Direct proposal to Architect.
☒ 42. Direct proposal to Citrus Heights Water District.

Comments: _____


Oak Ave
Sunrise Blvd & Vista Ridge Dr
Sunrise Blvd
Vista Ridge Dr
Sagemont Way
Gushman Ct
SURVEY AREA
Michigan Dr
Meadowriver Way
Pennington Way

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	:	2018 WATER RATES, MISCELLANEOUS FEES AND CHARGES AND CAPACITY FEES
STATUS	:	Discussion Item
REPORT DATE	:	October 3, 2017
PREPARED BY	:	Susan K. Sohal, Administrative Services Manger

OBJECTIVE:
Review and discuss the proposed Capacity Fees and Water Rates, Miscellaneous Fees and Charges for 2018.

BACKGROUND AND ANALYSIS:
This report presents the proposed Miscellaneous Fees and Charges for 2018, and Capacity Fees for 2018.

2018 Schedule of Water Rates, Miscellaneous Fees, Charges and Capacity Fees

A schedule comparing current 2017 adopted Water Rates, Miscellaneous Fees and Charges and Capacity Fees with the proposed 2018 Water Rates, Miscellaneous Fees and Charges and Capacity Fees accompanying this staff report. Significant elements of the 2018 water rate schedule are as follows:

- Other charges, such as Wheeling Water Charges, Construction Meters, and Fire Sprinkler Charges, are proposed to increase consistent with the same rate increase proposed to CHWD's customers.

- Adjustments to Other Charges and Fees are based on a staff analysis of staff time, equipment, materials and other costs involved in providing the specified services.

Next Steps:
The proposed 2018 Water Rates, Miscellaneous Fees and Charges and Capacity Fees schedule will be on the agenda as a Public Hearing for Board consideration at the Budget and Rate Adoption meeting on 11/08/17.

RECOMMENDATION:

1. Review and discuss the proposed Water Rates, Miscellaneous Fees, Charges and Capacity Fees 2018

2. Provide direction to staff on the draft Water Rates, Miscellaneous Fees, Charges and Capacity Fees for 2018.

CITRUS HEIGHTS WATER DISTRICT
2018 PRPOSED WATER RATES, FEES AND CHARGES
Proposed -- October 10, 2017

Type of Charge	Applied Basis or Frequency	2017 Adopted	2018 Proposed	Bi-monthly $ Change
Charges for Metered Rate Customer Accounts				
Service Charge, Domestic, Commercial & Irrigation Meters				
¾-inch meter	bi-monthly, per meter	$47.52	$48.94	$1.42
1-inch meter	bi-monthly, per meter	$72.30	$74.46	$2.16
1½-inch meter	bi-monthly, per meter	$88.82	$91.48	$2.66
2-inch meter	bi-monthly, per meter	$171.41	$176.55	$5.14
3-inch meter	bi-monthly, per meter	$270.54	$278.65	$8.11
4-inch meter	bi-monthly, per meter	$534.89	$550.93	$16.04
Service Charge, Combination Meters				
Low flow bypass meter	bi-monthly, per meter	$0.00	$0.00	$0.00
4-inch meter	bi-monthly, per meter	$171.41	$176.55	$5.14
6-inch meter	bi-monthly, per meter	$270.54	$278.65	$8.11
8-inch meter	bi-monthly, per meter	$534.89	$550.93	$16.04
10-inch meter	bi-monthly, per meter	$1,303.08	$1,342.17	$39.09
Public Agencies with Mutual Assistance Agreements (SJUSD, SRPD, SCD) (Multiplier = 0.50)				
Service Charge, Domestic, Commercial & Irrigation Meters				
¾-inch meter	bi-monthly, per meter	$23.75	$24.46	$0.71
1-inch meter	bi-monthly, per meter	$36.15	$37.23	$1.08
1½-inch meter	bi-monthly, per meter	$44.41	$45.74	$1.33
2-inch meter	bi-monthly, per meter	$85.70	$88.27	$2.57
3-inch meter	bi-monthly, per meter	$135.27	$139.32	$4.05
4-inch meter	bi-monthly, per meter	$267.44	$275.46	$8.02
Service Charge, Combination Meters				
Low flow bypass meter	bi-monthly, per meter	$0.00	$0.00	$0.00
4-inch meter	bi-monthly, per meter	$85.70	$88.27	$2.57
6-inch meter	bi-monthly, per meter	$135.27	$139.32	$4.05
8-inch meter	bi-monthly, per meter	$267.44	$275.46	$8.02
10-inch meter	bi-monthly, per meter	$651.54	$671.08	$19.54
Other Service Charges				
Service Charge, Construction Meters				
2½-inch and 3-inch meters	bi-monthly, per meter	$270.54	$278.65	$8.11
Service Charge, North Ridge Country Club Meter (multiplier = 3.00, not annexed)	bi-monthly, per meter	$216.89	$223.39	$6.50
Service Charge, Mount Vernon Memorial Park (multiplier = 2.31,based upon property annexed)				
Low flow bypass meter	bi-monthly, per meter	$0.00	$0.00	$0.00
8-inch Combination meter	bi-monthly, per meter	$1,235.58	$1,272.64	$37.06
Usage Charges for Water Consumed	*1 unit = 100 cubic feet = 748 gallons*			
Domestic, Commercial, Irrigation,Combination				
All meter sizes	per unit	$0.9871	$1.0167	$0.0296
Construction Meters	per unit, for all units bi-monthly	$2.9600	$3.0400	$0.0800
North Ridge Country Club Meter	per unit, for all units bi-monthly	$2.9600	$3.0400	$0.0800
Mount Vernon Memorial Park (2.31 multiplier)	per unit, for all units bi-monthly	$2.2800	$2.3400	$0.0600
Unannexed property (surplus water only)	multiplier times annexed rate, applied to service charge and commodity charge		3	--------
Wheeling Water Charge				

CITRUS HEIGHTS WATER DISTRICT
2018 PRPOSED WATER RATES, FEES AND CHARGES
Proposed -- October 10, 2017

Type of Charge	Applied Basis or Frequency	2017 Adopted	2018 Proposed	Bi-monthly $ Change
(unless otherwise adopted by mutual aid agreement)				
	per acre-foot to Cal-American WC	$56.20	$57.88	$1.68
	per acre-foot to Carmichael WD	$56.20	$57.88	$1.68
	per acre-foot to Fair Oaks WD	$56.20	$57.88	$1.68
	per acre-foot to Orangevale WD	$3.83	$3.94	$0.11
	per acre-foot to City of Roseville	$56.20	$57.88	$6.05
	per acre-foot to Sac. Suburban WD	$56.20	$57.88	$1.68
	per acre-foot to San Juan WD	$3.83	$3.94	$0.11
Commercial Fire Sprinkler Service Charges				
4-inch and smaller	per service, bimonthly	$75.52	$77.78	$2.26
6-inch	per service, bimonthly	$97.96	$100.89	$2.93
6-inch; one-half shared	per service, bimonthly	$48.98	$50.44	$1.46
6-inch; one-third shared	per service, bimonthly	$32.65	$33.62	$0.97
8-inch	per service, bimonthly	$119.31	$122.88	$3.57
8-inch; one-half shared	per service, bimonthly	$59.65	$61.43	$1.78
10-inch	per service, bimonthly	$160.82	$165.64	$4.82
12-inch	per service, bimonthly	$213.07	$219.46	$6.39
Construction Water Charges	minimum charge	$220.11	$226.71	$6.60
Schedule A - Projects	per lot	$151.35	$155.89	$4.54
Schedule B - Trenches, Excavations & Grading	per 100 cubic yards	$40.87	$42.09	$1.22
Schedule C - Tank Trucks	per 1,000 gallons	$6.78	$6.98	$0.20
Schedule D - Metered Use	meter rate	--------	--------	--------
Schedule E - Non-Profit	per day	$45.98	$47.35	$1.37
Plan Check Charges	minimum charge + per connection	$975.00	$1,023.00	$48.00
	per connection	$21.24	$21.88	$0.64
Easement/Quitclaim	per easement/quitclaim	$649.00	$669.00	$0.00
Inspection Charges				
Minimum	min. + per connect. + per main tie-in	$1,007.00	$1,058.00	$51.00
Plus per connection	per connection	$185.32	$190.88	$5.56
Plus per main tie-in	per main tie-in	$1,001.00	$1,014.00	$13.00
AC pipe disposal charge	per foot, 4 feet minimum ($200 min.)	$52.00	$51.00	($1.00)
Hydrostatic pressure test	each	$273.00	$276.00	$3.00
Backflow Prevention Assembly Testing Charge for New Development	per assembly	$80.00	$72.00	($8.00)
Bacteriological water test sampling	minimum	$302.00	$317.00	$15.00
Additional Bacteriological water sample	additional samples after minimum	$75.00	$79.00	$4.00
Chlorination & Flushing	per project	$183.00	$184.00	$1.00
Weekend/After Hours	per hour (4 hr. minimum)	$124.00	$127.00	$3.00
Holiday	per hour (4 hr. minimum)	$157.00	$162.00	$5.00
Water Service Installation Charges				
¾-inch services w/meter	per service	$4,092.00	$4,220.00	$128.00
1-inch service w/meter	per service	$4,219.00	$4,347.00	$128.00
Meter set charge:				
⅝ inch x ¾ inch	per meter	$416.00	$401.00	($15.00)
¾ inch	per meter	$471.00	$463.00	($8.00)
1 inch	per meter	$576.00	$580.00	$4.00
1½ inch	per meter	$810.00	$842.00	$32.00
2 inch	per meter	$958.00	$1,008.00	$50.00
>2 inch	actual cost			
Backflow prevention assembly installation charge				
¾ inch	each	$3,036.00	$3,119.00	$83.00
1 inch	each	$3,230.00	$3,318.00	$88.00
1½ inch	each	$3,750.00	$3,854.00	$104.00

CITRUS HEIGHTS WATER DISTRICT
2018 PRPOSED WATER RATES, FEES AND CHARGES
Proposed -- October 10, 2017

Type of Charge	Applied Basis or Frequency	2017 Adopted	2018 Proposed	Bi-monthly $ Change
2 inch	each	$3,980.00	$4,090.00	$110.00
>2 inch	actual cost			
Capacity Fees				
Residential- Multi-Family:				
Townhomes/Condos/Duplexes w/¾-inch max.	per service + non-residential uses	$4,343.00	$4,235.00	($108.00)
Townhomes/Condos/Duplexes w/1-inch max.				
Fire Sprinklers w/1-inch max.	per service + non-residential uses	$6,948.00	$6,776.00	($172.00)
Residential- Single Family:				
0 - 2.499 acres with 1-inch max.	per service	$6,948.00	$6,776.00	($172.00)
2.500 - 4.999 acres with 1¼-inch max.	per service	$7,817.00	$7,623.00	($194.00)
5.00 - 7.500 acres with 1½-inch max.	per service	$8,685.00	$8,470.00	($215.00)
Over 7.500 acres with 2-inch max.	per service	$17,370.00	$16,708.00	($662.00)
Nonresidential Users:				
Based on service size, including, but not limited to, commercial, industrial, irrigation, commercial swimming pools, and clubhouse applications:				
⅝ inch	per service	$2,606.00	$2,541.00	($65.00)
¾ inch	per service	$4,343.00	$4,235.00	($108.00)
1 inch	per service	$6,948.00	$6,776.00	($172.00)
1¼ inch	per service	$7,817.00	$7,623.00	($194.00)
1½ inch	per service	$8,685.00	$8,470.00	($215.00)
2 inch	per service	$17,370.00	$16,940.00	($430.00)
3 inch	per service	$27,792.00	$27,104.00	($688.00)
4 inch	per service	$55,584.00	$54,208.00	($1,376.00)
6 inch	per service	$217,125.00	$211,750.00	($5,375.00)
8 inch	per service	$416,880.00	$406,560.00	($10,320.00)
10 inch	per service	$660,060.00	$643,720.00	($16,340.00)
12 inch	per service	$868,500.00	$847,000.00	($21,500.00)
Other Charges and Fees				
Inclusion / Annexation Fee	per gross acre, ½ acre or greater	$1,486.00	$1,449.00	($37.00)
	minimum to ½ acre	$743.00	$724.50	($18.50)
Agenda-By-Mail Charge (e-mail delivery free)	per packet	$24.00	$24.00	$0.00
Agenda-By-Mail Charge (e-mail delivery free)	per year	$183.00	$149.00	($34.00)
Standby Service Charge	per hour, 1 hour minimum	$96.00	$102.00	$6.00
Returned Check Fee	per check	$26.00	$29.00	$3.00
Late Payment Penalty	5% of overdue account balance	5.00%	5.00%	
Turn-off Notice Service Charge	per occurrence	$23.00	$23.00	$0.00
Missed Appointment/No-Show Fee	per occurrence	$49.00	$49.00	$0.00
Disconnect / Reconnect Service Charge	per occurrence	$98.00	$104.00	$6.00
Meter Re-Read / Maintenance Charge	per occurrence	$41.00	$39.00	($2.00)
Customer Account Deposit	per account	$225.00	$225.00	$0.00
Construction Meter Deposit	per meter	$1,770.00	$1,775.00	$5.00
Copy Charge	per page	$0.10	$0.10	$0.00
Backflow Prevention Assembly Testing Charge	per assembly bimonthly	$12.50	$10.00	($2.50)
Backflow Prevention Assembly Re-testing Charge	per test	$78.00	$65.00	$80.00
Fire Flow Certification Letter	per letter	$23.00	$27.00	$4.00
Fire Flow Modeling	per modeling	$333.00	$345.00	$12.00
Fire Flow Modeling & Certification Letter	per modeling plus letter	$355.00	$372.00	$17.00
Recording of Lein	per occurrence	$0.00	$53.00	NEW
Release of Leing	per occurrence	$0.00	$66.00	NEW
Tamper Charge	per occurrence	$98.00	$104.00	$6.00
Water Conservation Violation Charge (1)	first occurrence	$50.00	$50.00	$0.00
Water Conservation Violation Charge (2)	second occurrence	$75.00	$75.00	$0.00
Water Conservation Violation Charge (3)	third occurrence	$100.00	$100.00	$0.00

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: DISCUSSION AND POSSIBLE ACTION TO APPROVE ENGINEERING, FINANCIAL PLANNING, AND PUBLIC ENGAGEMENT SERVICES FOR THE WATER MAIN REPLACEMENT STUDY, "PROJECT 2030" WITH HARRIS & ASSOCIATES, INC. AND APPROVE PROJECT FUNDING
STATUS	: Action Item
REPORT DATE	: October 11, 2017
PREPARED BY	: Missy Pieri, Engineering Manager/District Engineer

OBJECTIVE:
Consider acceptance of a responsive proposal for Engineering, Financial Planning, and Public Engagement Services for the Water Main Replacement Study, "Project 2030" for the Citrus Heights Water District (District), approve agreement with Harris and Associates, Inc. and approve project funding.

BACKGROUND AND ANALYSIS:
The majority of urban development within the District's service territory occurred between the period of 1960-1985. Water mains were installed by private developers and inspected by District staff. These water mains became "donated assets" to the District, and it became CHWD's responsibility to operate, maintain, and plan for the replacement of these facilities. As the District looks ahead, a tidal wave of water main replacements is anticipated to be needed beginning in year 2030 and carrying several years forward, as the water mains installed in the 1960's reach 70 years old. Therefore, CHWD proposes to prepare a water main replacement strategy incorporating phasing, cost estimates, and funding.

The District issued a Request for Proposal for Engineering, Financial Planning, and Public Engagement Services for the Water Main Replacement Study, "Project 2030" on April 7, 2017.

The scope of work for the Study includes the following items:

- Asset Inventory/Project Polygon Development
- Future Water Demand Projections
- Water Main Assessment
- Project Cost Estimates
- Water Main Replacement Phasing Plan
- Funding Strategy/Rate Options Analysis
- Implementation Plan
- Public Engagement/Stakeholder Outreach/Customer Advisory Committee
- Study Schedule
- Add/Deduct Item #1:System-Wide Pressure Control Analysis (with & without Power Generation)
- Add/Deduct Item #2: Market Research (Added in the updated proposal, dated August 11, 2017)

The District conducted a mandatory pre-proposal meeting at the City of Citrus Heights Community Center on April 26, 2017. Thirty-two (32) people from twenty (20) different firms attended the meeting.

The District received six (6) responsive proposals on May 26, 2017 from the following firms:

- Bennett Engineering Services
- Carollo Engineers, Inc.
- Coastland Civil Engineering, Inc.
- Harris & Associates, Inc.
- Kennedy/Jenks Consultants
- West Yost Associates

The District selected the top five (5) firms and conducted interviews on June 19 and 20, 2017. The District's Project 2030 interview panel consisted of seven (7) staff members including personnel from finance, operations, water resources, and engineering and General Manager Hilary Straus. Board of Directors Vice-President Ray Riehle was also present at portions of all interviews.

Based on review of the proposals and the interviews, the District selected three firms for second interviews, which were:

- Harris & Associates, Inc.
- Kennedy/Jenks Consultants
- West Yost Associates

The District also provided clarification on a few of the scope items which required the firms to provide an updated proposal, received on August 4, 2017. An add/deduct item for Market Research was also requested to be provided, which was received on August 11, 2017.

Interviews of the three finalist firms were conducted on August 17, 2017.

The following is the project budget for each of the consultants based on the updated project scope:

Consultant	Base Fee	Add/Deduct Item #1 - System-wide Pressure Control	Add/Deduct Item #2 – Market Research	Total Fee
Harris & Associates, Inc.	$287,020.30	$30,500.00	$36,589.00	$354,109.30
Kennedy/Jenks Consultants	$652,880.00	$27,694.00	$37,886.00	$718,460.00
West Yost Associates	$617,044.00	$13,398.00	$43,475.00	$673,917.00

Based on review of the updated proposals and interviews, the District's Project 2030 interview panel selected Harris & Associates, Inc. The District chose Harris & Associates based on their knowledge of the project, their qualifications in water main replacement studies and cost.

Based on the final project scope, Harris & Associates, Inc. final fee is as follows:

Consultant	Base Fee	Add/Deduct Item #1 - System-wide Pressure Control	Add/Deduct Item #2 – Market Research	Total Fee
Harris & Associates, Inc.	$306,325.26	$30,500.00	$36,588.75	$373,414.01

Customer Advisory Committee:
Integral to a successful planning study is an engagement component with District customers. A seventeen (17) member Customer Advisory Committee (CAC) focus group will be selected to consider the various alternatives, funding options, and recommendations.

There is an open application process for the CAC. Applications are due to the District by November 13, 2017. Applications will be brought to the Board of Directors at the December 20, 2017 Board Meeting and appointment is anticipated at the January 17, 2018 Board Meeting.

Other Study Costs:
In addition to the Project 2030 Study costs of $373,414.01, there are additional project costs which include marketing support, software, legal services and a 10% contingency which totals $92,341.43. The total project costs are summarized below:

Description	Amount
Project 2030 Study – Harris & Associates, Inc.	$373,414.01
Marketing Support	$10,000.00
Purchase of Software & License	$30,000.00
Legal Services Support	$10,000.00
Subtotal	**$423,414.01**
Contingency (10%)	$42,341.40
Total	**$465,755.41**

Funding the Planning Study:
The 2017 Budget allocates $200,000 for this Study. The additional project cost of $265,755.41 has been included in the proposed 2018 Operating Budget. In addition to requesting approval of the Professional Services Agreement with Harris & Associates, Inc., this item includes an expenditure authorization request for the total budget of $465,755.41, funded over the two budget years, 2017 and 2018, as described above.

The Professional Services Agreement including Harris & Associates, Inc. proposal, including scope, schedule, and fee, accompanies this report.

RECOMMENDATION:
1. Approve the Professional Services Agreement with Harris & Associates, Inc. for the Project 2030 Study. Authorize the General Manager to execute the accompanying agreement with Harris &

Associates, Inc. for engineering, financial planning, and public engagement services for the Project 2030 Study.

2. Authorize expenditures associated with this Study of up to $465,755.41. Note - $200,000 is funded through the 2017 Operating Budget. The remaining $265,755.41 will be allocated through the 2018 Operating Budget.

ATTACHMENT:
Professional Services Agreement for the Project 2030 Study

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

CITRUS HEIGHTS WATER DISTRICT
PROFESSIONAL SERVICES AGREEMENT

This Agreement is made and entered into as of _____, 20____ by and between the Citrus Heights Water District, an irrigation district organized and operating under the laws of the State of California with its principal place of business at 6230 Sylvan Road, Citrus Heights, California ("District"), and Harris & Associates, Inc., a S CORPORATION, with its principal place of business at 1110 W. Capitol Avenue, West Sacramento, California, 95691 (hereinafter referred to as "Consultant"). District and Consultant are sometimes individually referred to as "Party" and collectively as "Parties" in this Agreement.

RECITALS

A. District is a public agency of the State of California and is in need of professional services for the following project:

Engineering, Financial Planning & Public Engagement Services - Project 2030 Water Main Replacement Study (hereinafter referred to as "the Project").

B. Consultant is duly licensed and has the necessary qualifications to provide such services.

C. The Parties desire by this Agreement to establish the terms for District to retain Consultant to provide the services described herein.

AGREEMENT

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. Services.

Consultant shall provide the District with the services described in the Scope of Services attached hereto as Exhibit "A."

2. Compensation.

a. Subject to paragraph 2(b) below, the District shall pay for such services in accordance with the Schedule of Charges set forth in Exhibit "A."

b. In no event shall the total amount paid for services rendered by Consultant under this Agreement exceed the sum of $373,414.01. This amount is to cover all printing and related costs, and the District will not pay any additional fees for printing expenses. Periodic payments shall be made within 45 days of receipt of an invoice which includes a detailed description of the work performed. Payments to Consultant for work performed will be made on a monthly billing basis.

3. Additional Work.

If changes in the work seem merited by Consultant or the District, and informal consultations with the other party indicate that a change is warranted, it shall be processed in the following manner: a letter outlining the changes shall be forwarded to the District by Consultant with a statement of estimated changes in fee or time schedule. An amendment to this Agreement shall be prepared by the District and executed by both Parties before performance of such services, or the District will not be required to pay for the changes in the scope of work. Such amendment shall not render ineffective or invalidate unaffected portions of this Agreement.

4. Maintenance of Records.

Books, documents, papers, accounting records, and other evidence pertaining to costs incurred shall be maintained by Consultant and made available at all reasonable times during the contract period and for four (4) years from the date of final payment under the contract for inspection by District.

5. Time of Performance.

Consultant shall perform its services in a prompt and timely manner and shall commence performance upon receipt of written notice from the District to proceed ("Notice to Proceed"). Consultant shall complete the services required hereunder within the time as noted in the "Schedule" (see Exhibit "A"). The Notice to Proceed shall set forth the date of commencement of work.

6. Delays in Performance.

a. Neither District nor Consultant shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances include but are not limited to, abnormal weather conditions; floods; earthquakes; fire; epidemics; war; riots and other civil disturbances; strikes, lockouts, work slowdowns, and other labor disturbances; sabotage or judicial restraint.

b. Should such circumstances occur, the non-performing party shall, within a reasonable time of being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

7. Compliance with Law.

a. Consultant shall comply with all applicable laws, ordinances, codes and regulations of the federal, state and local government, including Cal/OSHA requirements.

b. If required, Consultant shall assist the District, as requested, in obtaining and maintaining all permits required of Consultant by federal, state and local regulatory agencies.

c. If applicable, Consultant is responsible for all costs of clean up and/ or removal of hazardous and toxic substances spilled as a result of his or her services or operations performed under this Agreement.

8. Standard of Care

Consultant's services will be performed in accordance with generally accepted professional practices and principles and in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions.

9. Assignment and Subconsultant

Consultant shall not assign, sublet, or transfer this Agreement or any rights under or interest in this Agreement without the written consent of the District, which may be withheld for any reason. Any attempt to so assign or so transfer without such consent shall be void and without legal effect and shall constitute grounds for termination. Subcontracts, if any, shall contain a provision making them subject to all provisions stipulated in this Agreement. Nothing contained herein shall prevent Consultant from employing independent associates, and subconsultants as Consultant may deem appropriate to assist in the performance of services hereunder.

10. Independent Consultant

Consultant is retained as an independent contractor and is not an employee of District. No employee or agent of Consultant shall become an employee of District. The work to be performed shall be in accordance with the work described in this Agreement, subject to such directions and amendments from District as herein provided.

11. Insurance. Consultant shall not commence work for the District until it has provided evidence satisfactory to the District it has secured all insurance required under this section. In addition, Consultant shall not allow any subcontractor to commence work on any subcontract until it has secured all insurance required under this section.

a. Commercial General Liability

(i) The Consultant shall take out and maintain, during the performance of all work under this Agreement, in amounts not less than specified herein, Commercial General Liability Insurance, in a form and with insurance companies acceptable to the District.

(ii) Coverage for Commercial General Liability insurance shall be at least as broad as the following:

(1) Insurance Services Office Commercial General Liability coverage (Occurrence Form CG 00 01) or exact equivalent.

(iii) Commercial General Liability Insurance must include coverage for the following:

(1) Bodily Injury and Property Damage
(2) Personal Injury/Advertising Injury
(3) Premises/Operations Liability
(4) Products/Completed Operations Liability
(5) Aggregate Limits that Apply per Project
(6) Explosion, Collapse and Underground (UCX) exclusion deleted
(7) Contractual Liability with respect to this Contract
(8) Broad Form Property Damage
(9) Independent Consultants Coverage

(iv) The policy shall contain no endorsements or provisions limiting coverage for (1) contractual liability; (2) cross liability exclusion for claims or suits by one insured against another; (3) products/completed operations liability; or (4) contain any other exclusion contrary to the Agreement.

(v) The policy shall give District, its officials, officers, employees, agents and District designated volunteers additional insured status using ISO endorsement forms CG 20 10 10 01 and 20 37 10 01, or endorsements providing the exact same coverage.

(vi) The general liability program may utilize either deductibles or provide coverage excess of a self-insured retention, subject to written approval by the District, and provided that such deductibles shall not apply to the District as an additional insured.

b. Automobile Liability

(i) At all times during the performance of the work under this Agreement, the Consultant shall maintain Automobile Liability Insurance for bodily injury and property damage including coverage for owned, non-owned and hired vehicles, in a form and with insurance companies acceptable to the District.

(ii) Coverage for automobile liability insurance shall be at least as broad as Insurance Services Office Form Number CA 00 01 covering automobile liability (Coverage Symbol 1, any auto).

(iii) The policy shall give District, its officials, officers, employees, agents and District designated volunteers additional insured status.

(iv) Subject to written approval by the District, the automobile liability program may utilize deductibles, provided that such deductibles shall not apply to the District as an additional insured, but not a self-insured retention.

c. Workers' Compensation/Employer's Liability

(i) Consultant certifies that he/she is aware of the provisions of Section 3700 of the California Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the

provisions of that code, and he/she will comply with such provisions before commencing work under this Agreement.

(ii) To the extent Consultant has employees at any time during the term of this Agreement, at all times during the performance of the work under this Agreement, the Consultant shall maintain full compensation insurance for all persons employed directly by him/her to carry out the work contemplated under this Agreement, all in accordance with the "Workers' Compensation and Insurance Act," Division IV of the Labor Code of the State of California and any acts amendatory thereof, and Employer's Liability Coverage in amounts indicated herein. Consultant shall require all subconsultants to obtain and maintain, for the period required by this Agreement, workers' compensation coverage of the same type and limits as specified in this section.

d. Professional Liability (Errors and Omissions)

At all times during the performance of the work under this Agreement the Consultant shall maintain professional liability or Errors and Omissions insurance appropriate to its profession, in a form and with insurance companies acceptable to the District and in an amount indicated herein. This insurance shall be endorsed to include contractual liability applicable to this Agreement and shall be written on a policy form coverage specifically designed to protect against acts, errors or omissions of the Consultant. "Covered Professional Services" as designated in the policy must specifically include work performed under this Agreement. The policy must "pay on behalf of" the insured and must include a provision establishing the insurer's duty to defend.

e. Minimum Policy Limits Required

(i) The following insurance limits are required for the Agreement:

	Combined Single Limit
Commercial General Liability	$1,000,000 per occurrence / $2,000,000 aggregate for bodily injury, personal injury, and property damage
Automobile Liability	$1,000,000 per occurrence for bodily injury and property damage
Employer's Liability	$1,000,000 per occurrence
Professional Liability	$1,000,000 per claim and aggregate (errors and omissions)

(ii) Defense costs shall be payable in addition to the limits.

(iii) Requirements of specific coverage or limits contained in this section are not intended as a limitation on coverage, limits, or other requirement, or a waiver of

any coverage normally provided by any insurance. Any available coverage shall be provided to the parties required to be named as Additional Insured pursuant to this Agreement.

f. Evidence Required

Prior to execution of the Agreement, the Consultant shall file with the District evidence of insurance from an insurer or insurers certifying to the coverage of all insurance required herein. Such evidence shall include original copies of the ISO CG 00 01 (or insurer's equivalent) signed by the insurer's representative and Certificate of Insurance (Acord Form 25-S or equivalent), together with required endorsements. All evidence of insurance shall be signed by a properly authorized officer, agent, or qualified representative of the insurer and shall certify the names of the insured, any additional insureds, where appropriate, the type and amount of the insurance, the location and operations to which the insurance applies, and the expiration date of such insurance.

g. Policy Provisions Required

(i) Consultant shall provide the District at least thirty (30) days prior written notice of cancellation of any policy required by this Agreement, except that the Consultant shall provide at least ten (10) days prior written notice of cancellation of any such policy due to non-payment of premium. If any of the required coverage is cancelled or expires during the term of this Agreement, the Consultant shall deliver renewal certificate(s) including the General Liability Additional Insured Endorsement to the District at least ten (10) days prior to the effective date of cancellation or expiration.

(ii) The Commercial General Liability Policy and Automobile Policy shall each contain a provision stating that Consultant's policy is primary insurance and that any insurance, self-insurance or other coverage maintained by the District or any named insureds shall not be called upon to contribute to any loss.

(iii) The retroactive date (if any) of each policy is to be no later than the effective date of this Agreement. Consultant shall maintain such coverage continuously for a period of at least three years after the completion of the work under this Agreement. Consultant shall purchase a one (1) year extended reporting period A) if the retroactive date is advanced past the effective date of this Agreement; B) if the policy is cancelled or not renewed; or C) if the policy is replaced by another claims-made policy with a retroactive date subsequent to the effective date of this Agreement.

(iv) All required insurance coverages, except for the professional liability coverage, shall contain or be endorsed to waiver of subrogation in favor of the District, its officials, officers, employees, agents, and volunteers or shall specifically allow Consultant or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Consultant hereby waives its own right of recovery against District, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

(v) The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability.

Further the limits set forth herein shall not be construed to relieve the Consultant from liability in excess of such coverage, nor shall it limit the Consultant's indemnification obligations to the District and shall not preclude the District from taking such other actions available to the District under other provisions of the Agreement or law.

h. Qualifying Insurers

(i) All policies required shall be issued by acceptable insurance companies, as determined by the District, which satisfy the following minimum requirements:

(1) Each such policy shall be from a company or companies with a current A.M. Best's rating of no less than A:VII and admitted to transact in the business of insurance in the State of California, or otherwise allowed to place insurance through surplus line brokers under applicable provisions of the California Insurance Code or any federal law.

i. Additional Insurance Provisions

(i) The foregoing requirements as to the types and limits of insurance coverage to be maintained by Consultant, and any approval of said insurance by the District, is not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Consultant pursuant to this Agreement, including but not limited to, the provisions concerning indemnification.

(ii) If at any time during the life of the Agreement, any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, District has the right but not the duty to obtain the insurance it deems necessary and any premium paid by District will be promptly reimbursed by Consultant or District will withhold amounts sufficient to pay premium from Consultant payments. In the alternative, District may cancel this Agreement.

(iii) The District may require the Consultant to provide complete copies of all insurance policies in effect for the duration of the Project.

(iv) Neither the District nor any of its officials, officers, employees, agents or volunteers shall be personally responsible for any liability arising under or by virtue of this Agreement.

j. Subconsultant Insurance Requirements. Consultant shall not allow any subcontractors or subconsultants to commence work on any subcontract until they have provided evidence satisfactory to the District that they have secured all insurance required under this section. Policies of commercial general liability insurance provided by such subcontractors or subconsultants shall be endorsed to name the District as an additional insured using ISO form CG 20 38 04 13 or an endorsement providing the exact same coverage. If requested by Consultant, District may approve different scopes or minimum limits of insurance for particular subcontractors or subconsultants.

12. Indemnification.

a. To the fullest extent permitted by law, Consultant shall defend (with counsel reasonably approved by the District), indemnify and hold the District, its officials, officers, employees, agents and volunteers free and harmless from any and all claims, demands, causes of action, suits, actions, proceedings, costs, expenses, liability, judgments, awards, decrees, settlements, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, (collectively, "Claims') in any manner arising out of, pertaining to, or incident to any alleged acts, errors or omissions, or willful misconduct of Consultant, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Consultant's services, the Project or this Agreement, including without limitation the payment of all consequential damages, expert witness fees and attorneys' fees and other related costs and expenses. Notwithstanding the foregoing, to the extent Consultant's services are subject to Civil Code Section 2782.8, the above indemnity shall be limited, to the extent required by Civil Code Section 2782.8, to Claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the District, its officials, officers, employees, agents or volunteers.

b. Additional Indemnity Obligations. Consultant shall defend, with counsel of District's choosing and at Consultant's own cost, expense and risk, any and all Claims covered by this section that may be brought or instituted against the District, its officials, officers, employees, agents or volunteers. Consultant shall pay and satisfy any judgment, award or decree that may be rendered against the District, its officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Consultant shall also reimburse District for the cost of any settlement paid by the District, its officials, officers, employees, agents or volunteers as part of any such claim, suit, action or other proceeding. Such reimbursement shall include payment for the District's attorney's fees and costs, including expert witness fees. Consultant shall reimburse the District, its officials, officers, employees, agents and volunteers, for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. Consultant's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by the District, its officials, officers, employees, agents and volunteers.

13. California Labor Code Requirements.

a. Consultant is aware of the requirements of California Labor Code Sections 1720 et seq. and 1770 et seq., which require the payment of prevailing wage rates and the performance of other requirements on certain "public works" and "maintenance" projects. If the services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Consultant agrees to fully comply with such Prevailing Wage Laws, if applicable. Consultant shall defend, indemnify and hold the District, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure to comply with the Prevailing Wage Laws. It shall be mandatory upon the Consultant and all subconsultants to comply with all California Labor Code provisions, which

include but are not limited to prevailing wages, employment of apprentices, hours of labor and debarment of contractors and subcontractors.

b. If the services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Consultant and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Consultant shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Consultant's sole responsibility to comply with all applicable registration and labor compliance requirements.

14. Verification of Employment Eligibility.

By executing this Agreement, Consultant verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subconsultants and sub-subconsultants to comply with the same.

15. Laws and Venue.

This Agreement shall be interpreted in accordance with the laws of the State of California. If any action is brought to interpret or enforce any term of this Agreement, the action shall be brought in a state or federal court situated in the County of Sacramento, State of California.

16. Termination or Abandonment

a. District has the right to terminate or abandon any portion or all of the work under this Agreement by giving ten (10) calendar days written notice to Consultant. In such event, District shall be immediately given title and possession to all original field notes, drawings and specifications, written reports and other documents produced or developed for that portion of the work completed and/or being abandoned. District shall pay Consultant the reasonable value of services rendered for any portion of the work completed prior to termination. If said termination occurs prior to completion of any task for the Project for which a payment request has not been received, the charge for services performed during such task shall be the reasonable value of such services, based on an amount mutually agreed to by District and Consultant of the portion of such task completed but not paid prior to said termination. District shall not be liable for any costs other than the charges or portions thereof which are specified herein. Consultant shall not be entitled to payment for unperformed services, and shall not be entitled to damages or compensation for termination of work.

b. Consultant may terminate its obligation to provide further services under this Agreement upon thirty (30) calendar days' written notice to District only in the event of substantial failure by District to perform in accordance with the terms of this Agreement through no fault of Consultant.

17. Documents. Except as otherwise provided in "Termination or Abandonment," above, all original field notes, written reports, drawings and specifications and other documents, produced or developed for the Project ("Documents & Data") shall, upon payment in full for the services described in this Agreement, be furnished to and become the property of the District. Nothing contained in this Section shall be construed as limiting or depriving Consultant of its rights to use its basic knowledge and skills to carry out other projects or work for itself or others, whether or not such other projects or work are similar to the work to be performed pursuant to this Agreement. Consultant shall have the right to retain and use copies of any Documents & Data furnished or to be furnished by Consultant less any specific details provided by the District unless such details are within the public realm. All Documents & Data are instruments of service and are not intended to be modified or represented to be suitable for reuse on other projects by District except as may be contemplated pursuant to the terms of this Agreement. Any such modification or reuse without Consultant's prior written approval will be at District's sole risk, without liability or legal exposure to Consultant. Rights to intellectual property developed, utilized, or modified in the performance of the services under this Agreement including the Documents & Data developed hereunder ("Intellectual Property") shall remain the property of Consultant. Consultant hereby grants to District an irrevocable, nonexclusive, royalty-free license to utilize Intellectual Property provided to District as part of the Services for the purposes set forth in this Agreement.

18. Organization

Consultant shall assign Mr. Roger Kohne as Project Manager. The Project Manager shall not be removed from the Project or reassigned without the prior written consent of the District.

19. Limitation of Agreement.

This Agreement is limited to and includes only the work included in the Project described above.

20. Notice

Any notice or instrument required to be given or delivered by this Agreement may be given or delivered by depositing the same in any United States Post Office, certified mail, return receipt requested, postage prepaid, addressed to:

DISTRICT	CONSULTANT:
Citrus Heights Water District	Harris & Associates
6230 Sylvan Road	1110 W. Capitol Avenue
Citrus Heights, California 95610	West Sacramento, California 95691
Attn: Melissa Pieri	Attn: Roger Kohne
Engineering Manager/District Engineer	Project Manager

and shall be effective upon receipt thereof.

21. Third Party Rights

Nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the District and the Consultant.

22. Equal Opportunity Employment.

Consultant represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or other interests protected by the State or Federal Constitutions. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

23. Entire Agreement

This Agreement, with its exhibits, represents the entire understanding of District and Consultant as to those matters contained herein, and supersedes and cancels any prior or contemporaneous oral or written understanding, promises or representations with respect to those matters covered hereunder. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. This Agreement may not be modified or altered except in writing signed by both Parties hereto. This is an integrated Agreement.

24. Severability

The unenforceability, invalidity or illegality of any provision(s) of this Agreement shall not render the provisions unenforceable, invalid or illegal.

25. Successors and Assigns

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each party to this Agreement. However, Consultant shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of District. Any attempted assignment without such consent shall be invalid and void.

26. Non-Waiver

None of the provisions of this Agreement shall be considered waived by either party, unless such waiver is specifically specified in writing.

27. Time of Essence

Time is of the essence for each and every provision of this Agreement.

28. District's Right to Employ Other Consultants

District reserves its right to employ other consultants, including engineers, in connection with this Project or other projects.

29. Prohibited Interests

Consultant maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Consultant, to solicit or secure this Agreement. Further, Consultant warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Consultant, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, District shall have the right to rescind this Agreement without liability. For the term of this Agreement, no director, official, officer or employee of District, during the term of his or her service with District, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

[SIGNATURES ON FOLLOWING PAGE]

SIGNATURE PAGE FOR PROFESSIONAL SERVICES AGREEMENT BETWEEN THE CITRUS HEIGHTS WATER DISTRICT AND HARRIS & ASSOCIATES

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

CITRUS HEIGHTS WATER DISTRICT	HARRIS & ASSOCIATES, INC.
By: _____	By: _____
Hilary M. Straus	
General Manager	Its: _____
	Printed Name: _____
	Federal ID No. _____
	Business License Number _____
	(City of _____)

EXHIBIT A

Scope of Services
Schedule of Charges/Payments
Schedule

Engineering, Financial Planning & Public Engagement Services Project 2030 Water Main Replacement Study

CITRUS HEIGHTS WATER DISTRICT

October 5, 2017



"Bringing every planning element and all stakeholders into alignment is a recipe for success."

-Harris & Associates



Harris & Associates®

Letter of Transmittal

Updated

Harris & Associates

August 4, 2017

Melissa Pieri, PE
District Engineer
Citrus Heights Water District
6230 Sylvan Road
Citrus Heights, CA 95610-5610

Engineering, Financial Planning & Public Engagement Services
Project 2030 Water Main Replacement Study (Update Proposal)

Dear Melissa:

Thank you for the opportunity to submit our proposal which has been updated based on the District's revised RFP. Per your email instructions, we are sending you updated Report Tasks (Scope of Work), Project Cost, and Schedule sections. Changes to our proposal that we wish to highlight include the following:

1. Changes to Task 1 – Asset Inventory and Project Polygon Develop per the revised RFP. We will continue to use Craig Gooch of Psomas for this task.
2. For Task 3 – Water Main Assessment, we intend to use the Innovyze InfoMaster software for the condition assessment work.
3. For Task 6 – Funding Strategy/Rate Option Analysis, we intend to work with Habib Isaac with Raftelis and have included the scope and fee proposal that he provided to us.
4. For Task 8 – Public Engagement, we will continue to use Laura Mason-Smith, who was part of our original team. Based on the revised RFP, she has provided us with an updated scope and fee that we have included in our proposal.

Regarding the Project Schedule, we have assumed a Notice-to-Proceed and project kickoff in mid-October, based on approval by the District's Board of Directors on September 20, 2017. We have also allocated approximately 2 months for the District to complete the scanning process of all relevant plans and documents before we begin with the Polygon Development task. As a result, the completion date for the project is shown to be in early 2019. If we are awarded the project, we are happy to review this schedule and see if there are ways to complete the project sooner to meet the District's needs.

We will also be send you a supplemental scope and fee proposal for the Add/Deduct Item #2 – Marketing Research/Public Opinion Survey task before the indicated deadline. We have shown this task on the revised schedule.

We are excited to see all of you again at the follow-up interview to discuss our updated proposal and any other questions you might have for the Harris team. Please do not hesitate to contact me should have any questions.

Sincerely,
Harris & Associates, Inc.

Roger Kohne, PE
Project Manager - Authorized Representative/ Correspondent
1110 W Capitol Avenue
West Sacramento, CA 95691
T: 925.969.2166 E: Roger.Kohne@WeAreHarris.com

Steve Winchester
Principal-in-Charge
T: 949.536.2584
E: Steve.Winchester@WeAreHarris.com

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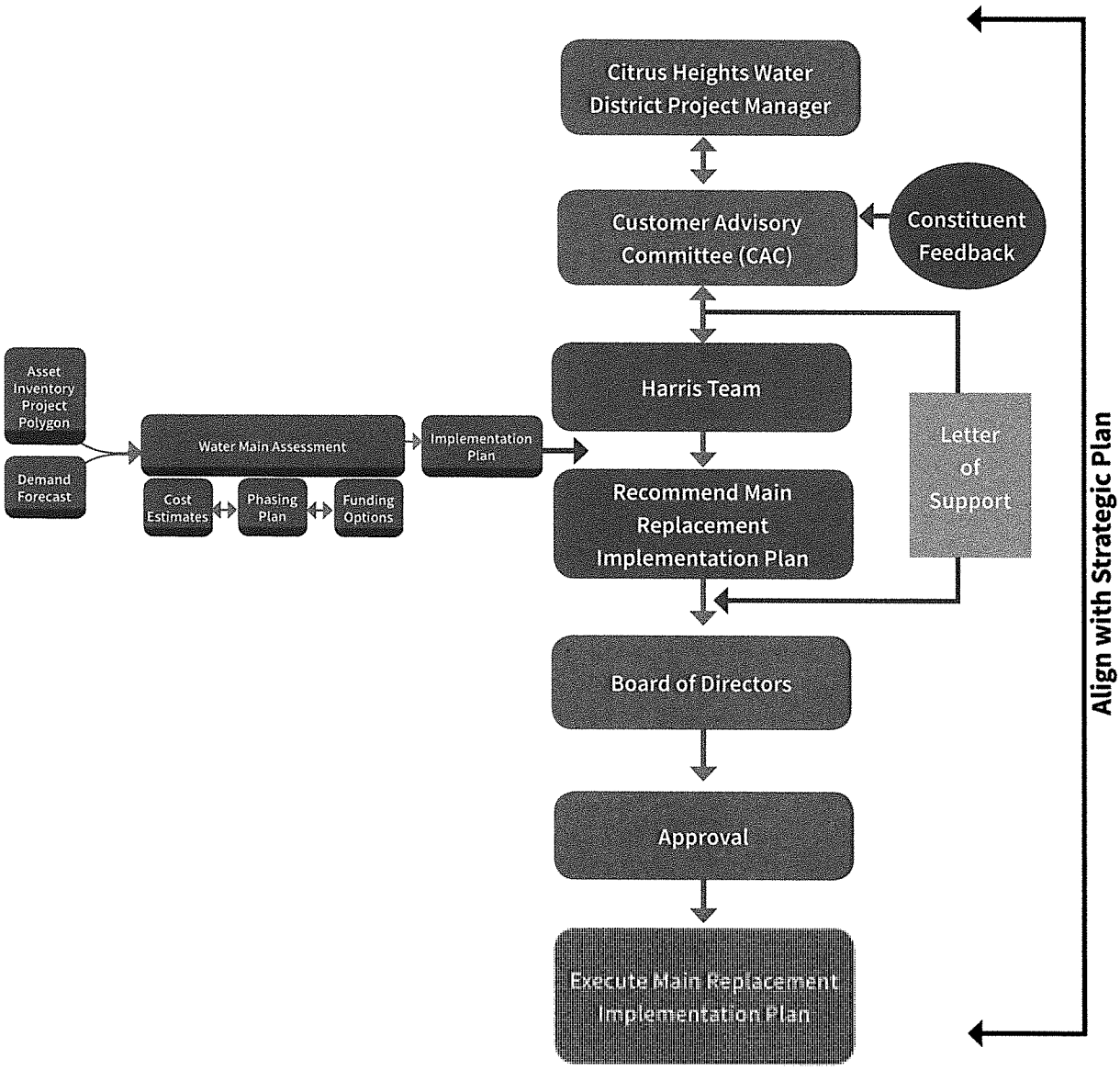
Summary

Summary

Introduction

Development of the 2030 Water Main Replacement Study will align with the District's Strategic Plan. This critical connection will confirm that all stakeholders, both internal and external to the District, are on the same page relative to why this Study is being undertaken and its ultimate importance to the future of the District. The Harris team has developed a project vision for this study shown in the figure below. It is anchored by your Strategic Plan and depicts all key stakeholders; their roles relative to the study and the desired outcomes.

2030 WATER MAIN REPLACEMENT PROJECT VISION



The ultimate goal is enthusiastic and unanimous approval of the study results by your Board. To accomplish this we offer the following proposal provisions:

1. The Harris team envisions a collaborative process with the District's Project Manager, District staff and the CAC. We expect that the District will have selected the members of the CAC prior to the start of the Main Replacement Study.
2. As the Harris team works through the various analyses in the study we will share the appropriate information with the CAC.
3. We expect that the members of the CAC will solicit feedback from their constituents regarding their views on various water service challenges including the level of capital spending and rates, and that they will bring this feedback to the workshops.
4. The Harris team will ultimately develop recommendations for main replacement and an Implementation Plan that would go to the District's Board of Directors.
5. Ideally, the CAC would craft a letter of support that would accompany the recommendations to the Board. If possible, members of the CAC would also attend the Board meeting to voice their support for the recommendations.
6. The Harris team will assist the District in gaining Board approval.
7. When that approval is received, the Implementation Plan would move forward.

We have successfully guided water agencies using this approach for various planning and rate-related studies. The keys to success include a pro-active, planning perspective; frequent and thoughtful communications and managing the expectations of all parties.

WHY THE HARRIS TEAM?

The Harris team is comprised of trusted advisors and seasoned experts; the right combination to provide you with the confidence that this project gets done as you envisioned.

- **Roger Kohne**, our Project Manager with 25 years of engineering experience, knows how to work effectively with District staff. He brings a unique combination of experience working at public utilities and private engineering firms – insight that will translate into valuable perspectives as we move through this project.
- **Steve Winchester** is our Principal-in-Charge. A seasoned expert in water utility management, he will be a key resource for both Roger and the District's Project Manager, Melissa Pieri.
- **Craig Gooch**, a familiar and experienced GIS and data management expert, will bring his expertise to deliver an updated GIS-based pipe asset inventory.
- Another familiar face to the District, **Laura Mason-Smith**, will direct the public engagement efforts. Her familiarity with District leadership and District stakeholders will enable her to design workshops around the expectations of stakeholders.

The Harris team is rounded out with seasoned experts such as **Vern Phillips** a 40 year veteran of water utility planning, design and construction. An expert in trenchless technologies, Vern's out-of-the box thinking will be instrumental in leading the main assessment, prioritization and phasing efforts. **Pranam Joshi** will lead the hydraulic modeling efforts to determine future water demands. He is a nationally recognized expert in hydraulic modeling and will work closely with the District's current modeling consultant to make sure that key modeling assumptions are incorporated into future modeling efforts, where applicable. Finally, **Ann Hajnosz**, will work with District finance staff in the development of funding options for the main replacement plan.

"Roger was very successful at keeping projects at the City of Folsom moving forward to completion. He fully understands local governance, regional water issues, embraces working with field staff, and is very comfortable interfacing with the public on contentious issues. He got the job done."

MARCUS YASUTAKE, ENVIRONMENTAL AND WATER RESOURCES DIRECTOR
CITY OF FOLSOM

APPROACH TO PROJECT MANAGEMENT

While not specifically requested, we think it's important for you to understand Harris' approach to Project Management. We view Project Management as a key task that crosses all other project elements; it is not a separate task per se. Ensuring fluid and accurate communication across all project elements; making sure scopes and budget expectations are clear and adhered to throughout the project; enforcing QA/ QC procedures for all project deliverables – are all elements of strong, proactive project management and are integral to every Harris project.

Engaged, proactive project management is critical to any project's success. Open communication with the team and stakeholders builds trust that leads to success.

Roger's approach to project management is to be fully involved and engaged in all aspects of the project. You will be able to call him with a question about the status of any task and get an immediate response. With multiple team members and subconsultants performing interconnected tasks, it is critical that your Project Manager be up-to-speed on all of these items. One of Roger's hallmark traits is open and direct communication with the District, his project team, and other project stakeholders. This approach will also allow him to be present and actively engaged at all Customer Advisory Committee (CAC) meetings. This secures a continuity in the outreach and messaging to the CAC, as well as building trust with these important participants.

Roger will also work closely with the District to confirm that project documents and correspondence are efficiently shared between the District and Harris team. This can include technology such as SharePoint, DropBox, or other data management tools, which we have found to be very effective not only during a project, but also for archiving key documents during project closeout. Roger will work with the District's Project Manager at the outset of the project to determine the appropriate communication protocols and reporting requirements needed to manage this project in a transparent and efficient manner.

In summary, the Harris team provides the right balance of trusted advisors and seasoned experts with combined experience in the areas of project management, GIS and data management, asset management, water modeling, water main planning, assessment, design and construction, water utility financial modeling and rate analyses and public outreach. This will result in a plan built on robust technical and financial analyses; thorough and thoughtful public outreach and engagement and will align with your Strategic Plan. Bringing all of these elements into alignment is truly the recipe for success.

Statement of Understanding

Statement of Understanding

Common Vision

Renewal and replacement of infrastructure, financing of improvements and public understanding of the value of water are identified by the American Water Works Association (AWWA) 2016 State of the Water Industry (SOTWI) Survey as the **three most important issues** to water system managers in the United States.

Top Issues Facing the Water Industry*

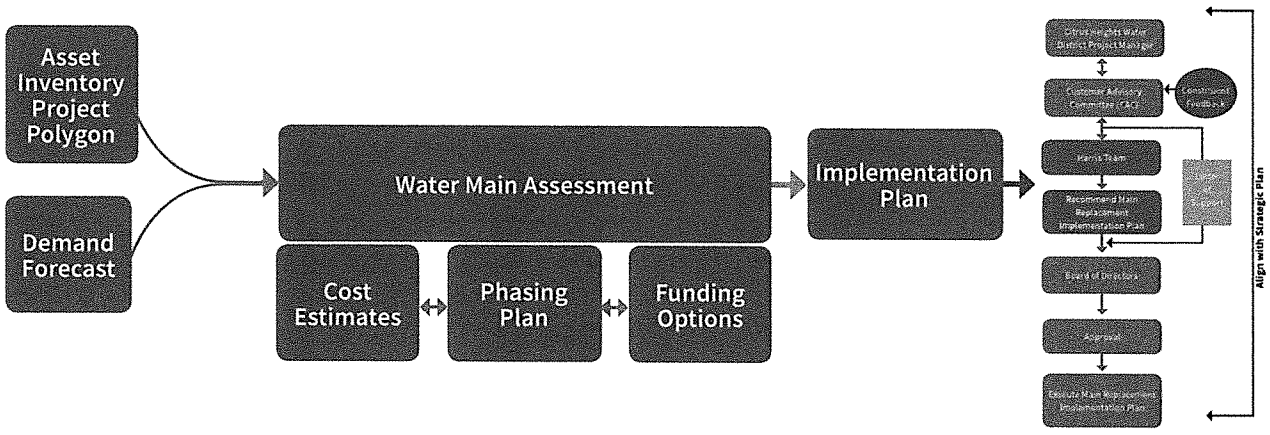
Rank	Category	Score
1	Renewal and Replacement of Aging Water Infrastructure	4.57/5.00
2	Financing for Capital Improvements	4.51/5.00
3	Public Understanding of the Value of Water Systems and Services	4.42/5.00

**Partial results from AWWA 2016 State of the Water Industry Survey*

That is why it is so important, and admirable, that the Citrus Heights Water District (CHWD or District) is embarking on its 2030 Water Main Replacement Study. Our vision for this project is the same as yours as shown in the graphic below. It is comprehensive in scope – in that it creates a framework to complete all of the technical aspects of this project in alignment with your Strategic Plan.

Our goal and purpose is to serve as a trusted advisor to our clients – it is why we are in this business. We are committed to helping the District fulfill its goals for this project by offering you an experienced team of water utility experts that share your vision, have a common understanding of the challenges and can offer creative ways of resolving these challenges.

2030 WATER MAIN REPLACEMENT PROJECT VISION - KEY ELEMENTS



The paragraphs on the following pages provide detail on our understanding of the engineering and financial services requested in the RFP.

ASSET INVENTORY AND PROJECT POLYGON DEVELOPMENT

A key element to this project will be to update the water network inventory of assets and map GIS polygons of projects and subdivisions. With a complete inventory of the District's water assets, we will be able to assess and prioritize main replacements more accurately for short term and long term planning efforts.

Using proven off-shore resources for the GIS work will save the District money with quality results.

The Harris team, led by Task Lead, **Craig Gooch**, understands the importance of the GIS as an information foundation for the water main replacement study. A current GIS will facilitate location based analysis of conditions, demand, capital planning, and cost analysis. GIS based data analysis and modeling facilitates automation of the analysis by area and through network modeling. GIS integrates information from the existing hydraulic model, asset characteristics (age and material), leak history (from Cityworks), field condition assessment, critical facilities, and other data to assess, quantify, and visualize information to aid in main replacement and prioritization. With just over 13,000 unique assets to be populated (the database) excluding private mains, Craig also understands that this is a resource-intensive effort that must be implemented cost-effectively. He is already considering innovative ideas to approach this effort, including deploying off-shore resources, an approach he used successfully on the County of Alameda project.

FUTURE WATER DEMAND PROJECTIONS

The District already has two key resources that will be used to build the updated Main Replacement Plan, namely the 2015 Urban Water Management Plan (UWMP) and a current hydraulics model of existing service area demands. Both resources plus other supporting documents, such as the City's General Plan and other regional studies, will be used to look at future water demand projections beyond 2035. Our team of experienced hydraulic modelers is expecting to collaborate with the District's current modeling consultant in running the model and assessing results for future demands. Future assumptions for determining future demands will be modified with a full understanding of current assumptions. For example, we understand that the District's service area is generally considered at full build-out. However, future demand must consider continuing trends in water usage patterns driven by climate changes. What will these trends mean for residential and commercial demand?

WATER MAIN ASSESSMENT, PROJECT COST ESTIMATES AND REPLACEMENT PLANNING PHASE

Asset management and risk assessment associated with water mains presents significant challenges. One of the greatest challenges is that most of these infrastructure assets are underground and difficult to inspect and assess their condition. Therefore, a methodology that looks at the utility's own historical data as well as industry-wide experience (e.g. manufacturing data and failure data), is used to evaluate a utility's underground assets and develop a replacement plan that it can manage and afford.

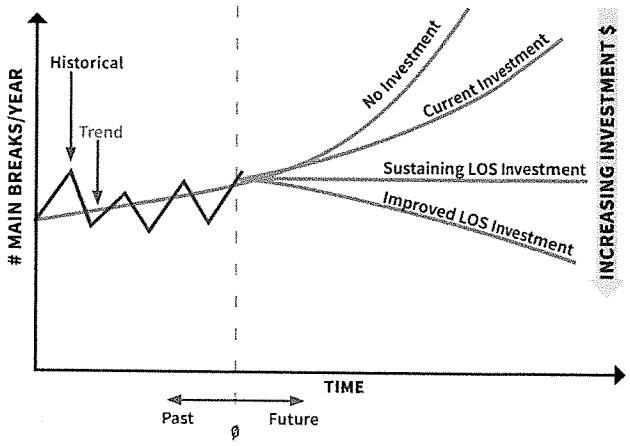
An optimized replacement plan will help the District avoid overspending on main replacements.

A typical desktop risk assessment often just considers pipe age and book value to calculate remaining service life. However, we will also include other relevant data such as historical operating pressure, which has significant impact on a pipeline's service life, to avoid assuming pipelines need to be replaced even though they could have significant remaining service life. This will result in a more optimized and financially sustainable replacement plan.

An important concept to be explored and brought to the CAC is level of service (LOS). This term has many interpretations, but in the context of asset management, it is used to relate historical and future main repairs. The graph on the next page is an example where historical main break data are projected under different investment/

replacement scenarios. A no investment (do-nothing) option will typically see future main breaks increasing at an ever growing rate. These reactive (rather than proactive) repairs have a greater utility cost associated with them. Even if a utility maintains its current rate of investment, it may still see overall breaks continue to increase due to the extent of deteriorated condition of its assets. Another goal may be to maintain the current level of service (annual main breaks), which may require an even greater investment. Finally, if the goal is to improve level of service and reduce the frequency of main breaks in the system, an even higher investment may be required. This is an important and valuable concept that we will work to educate the CAC on to help it make informed recommendations on behalf of all ratepayers.

Level of Service Scenarios



Key information used for this is the utility's historical assets and repair records, including water main break and leak repairs. This information is important for several reasons:

- Identifies a historical baseline for leaks, repairs, and costs experienced by the District
- Identifies differences in leaks and breaks for different pipe materials and service conditions
- Is used to model and predict future repair scenarios based on different levels of investment

In addition to data records, it is also important to interview the utility's staff and get their input as to the nature and scale of the problem. Maintenance staff very often have knowledge of the system that has not or cannot be fully captured or understood without talking with them. These discussions also allow the team to understand how the utility's policies and practices are actually implemented. Getting buy-in from utility staff early in the process helps increase the chances of ownership in an Implementation Plan.

Industry-wide data is used to help in the risk evaluation. Many utilities have steel and ductile iron pipe that has been in service for 75 years or more, and these lines continue to provide reliable service. Other materials, including cast iron and galvanized iron, have been consistently shown to have a much higher rate of pipe breaks across the country. Another material that was commonly used by many water systems, including the Sacramento area, was asbestos cement (AC) pipe, starting in the 1950s and 1960s. This material is notoriously brittle and is subject to breaks due to ground settlement as well as deterioration. Even during scheduled maintenance or repairs, it can break without warning.

Once projects are prioritized and preliminary cost estimates are developed, a main replacement capital program can be developed. Harris' experience in both design and construction will benefit the District in developing cost estimates it can depend on. The baseline main replacement program can now be evaluated in the context of financial planning, implementation, rate impacts and most important customer feedback.

FUNDING STRATEGY/RATE OPTIONS ANALYSIS

Although the focus of the study is on the funding of water main replacement, the Harris team's broad-based water planning and capital funding expertise will quickly identify and anticipate impacts of key decisions made in the Water Main Phasing Plan to the overall capital program of the District. For example, we need to take into consideration the replacement of critical mains relative to other projects that may impact the same neighborhood and pipe upsizing decisions that need to be coordinated with other capacity increasing projects, (i.e. new or upgraded storage). This kind of insight will benefit the project through early engagement of the right people to collaborate and make critical decisions that will keep the project moving forward. This approach will increase the realization of cost savings during construction.

Evaluating funding options for main replacement will be an iterative effort incorporating feedback from the Harris team, the District and the CAC. Flexibility and creativity will be key to developing financial scenarios that accomplish as many goals as possible. For example, we can evaluate scenarios based on:

1. What needs to be done, (i.e. the full complement of main replacement projects)?
2. What can be done given current staffing levels?
3. What is affordable to the community?

This kind of analyses will provide "bookends" or the extremes for what can be accomplished and what the results would be from a staffing/operations standpoint, (e.g. how many projects can be managed by current District staff), as well as a financial/rates impact standpoint, (e.g. we would examine not only rate impacts but also financial assurance impacts on reserve levels and debt service coverage ratios, if applicable).

IMPLEMENTATION PLAN

Like our approach for the overall plan, the Implementation Plan, which will layout how the main replacement projects will be accomplished, will be grounded in the principles and values of the District's Strategic Plan.

The ability to execute capital programs is significant because it can have a large impact on the financial operations of a utility. Rates that are set anticipating high levels of capital expenditures may cause excess revenue problems (i.e. excess reserves) if those capital projects are not executed as planned. Worse yet, stakeholders can lose confidence in a utility that asks for high rate increases and then cannot spend the money. Conversely, rates set too low will not support needed capital projects and could put the system at risk in the long run.

Therefore, it is imperative that the Implementation Plan take into account how the District currently executes capital projects and what resources will be necessary to execute future capital projects that would provide the desired LOS. Further, it should be emphasized that the Implementation Plan must include on-going key performance metrics and pro-active metrics that will help the District track their efforts at executing capital projects over time, especially since capital projects for transmission and distribution make up almost half of your 2017 capital budget, 49.11% (27.50% + 21.61%) to be exact. For example, key performance metrics could include the value of contracts encumbered (contracted) in a year versus budget and the value of contracts actually paid versus budget. Pro-active metrics include identifying projects that are in danger of missing deadlines due to problems such as Right-of-Way challenges, property acquisition challenges, utility conflicts and permitting challenges. By grouping and tagging projects that are having these common challenges, possible process improvements could be worked out, increasing efficiencies in the future.

PUBLIC ENGAGEMENT/STAKEHOLDER OUTREACH/CUSTOMER ADVISORY COMMITTEE/ PRESENTATIONS

Renewal and Replacement Challenges*

Rank	Category	Score
1	Establishing and Following a Financial Policy for Capital Reinvestment	4.27/5.00
2	Prioritizing R&R needs	4.24/5.00
3	**Justifying R&R programs to Ratepayers**	**4.43/5.00**
4	**Justifying R&R Programs to Oversight Bodies (e.g., board, Council)**	**4.21/5.00**
5	Establishing and Maintaining Specific R&R reserves	4.16/5.00
6	Coordinating R&R with other activities (e.g. Road Repair, Redevelopment)	4.06/5.00
7	Developing/Implementing Asset Management Programs	3.96/5.00
8	Defining Appropriate levels of Service	3.75/5.00

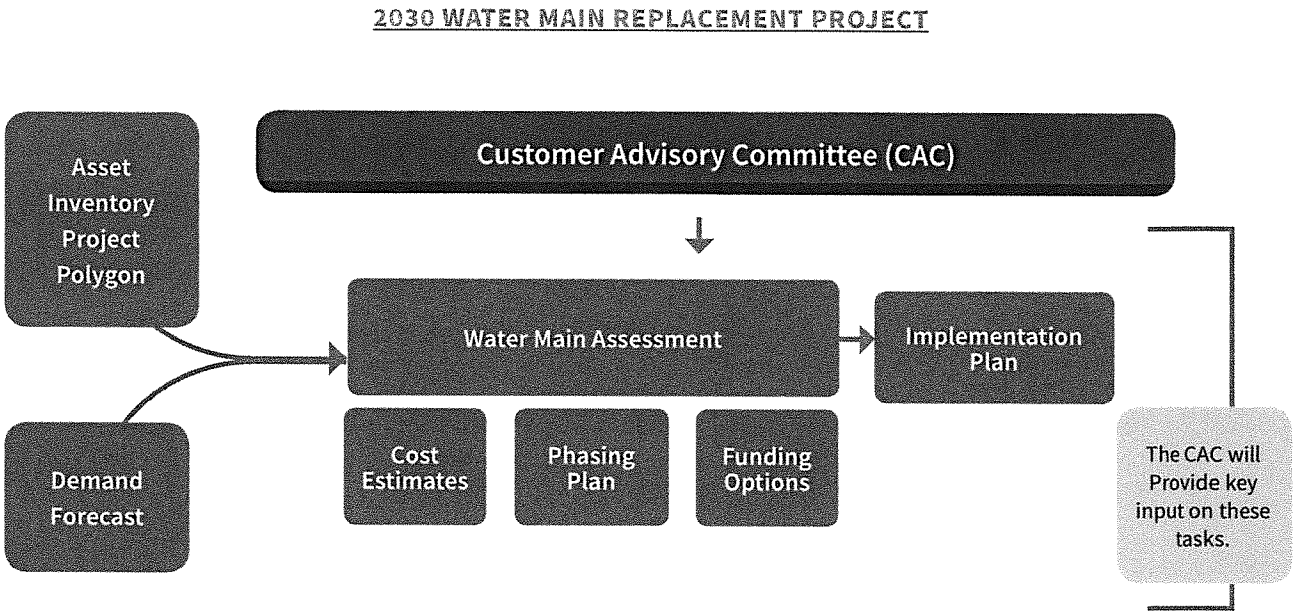
**Partial results from AWWA 2016 State of the Water Industry Survey*

As indicated in the AWWA SOTWI Survey, justifying capital programs to ratepayers and oversight bodies are ranked in the top five challenges for implementing capital replacement projects. System capital and O&M costs are ultimately borne by the rate payers, and more so today than ever before, they want to know that their districts are being good stewards with the funds they are entrusted with. This goes hand-in-hand with effective public outreach. We know that in today's world of social media, information and mis-information is spread at lightning speed. It is critical that districts establish and maintain trust with its customers.

Our motto for this task is "early engagement and no surprises". Early and effective public engagement with stakeholders and stakeholder groups such as the CHWD's Citizens' Advisory Committee (CAC) is a best management practice in the development of water master plans. This is not merely an exercise in notifying stakeholders of water district plans; the goal is to receive input and gain their buy-in to the Plan. As a result managing stakeholder expectations is paramount; entrusting this key task to someone who is already providing value to you as you update your Strategic Plan, Laura Mason-Smith, increases the probability of achieving our shared vision of this project.

Report Tasks

Report Tasks



Tasks and Methodologies

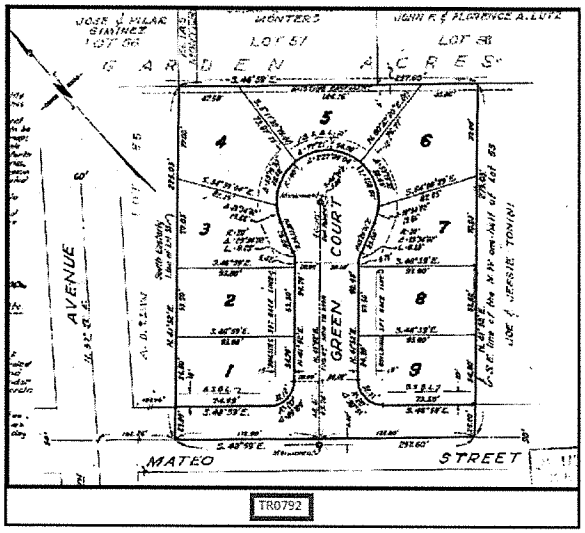
TASK 1 - ASSET INVENTORY AND PROJECT POLYGON DEVELOPMENT

Our team will complete the City's pipeline database by filling in missing asset characteristics (age and material) and create GIS based polygons referencing projects and subdivisions. In addition to the GIS data enhancement, we will use GIS tools to support the analysis and presentation of findings and recommendations. The process includes the following steps:

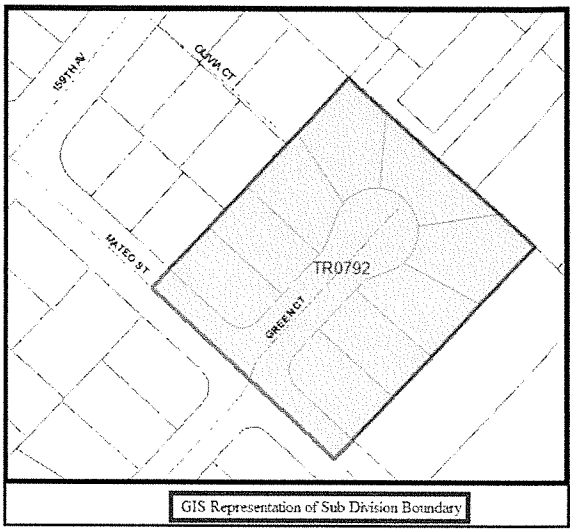
Asset Inventory

We will create a data view to identify water assets missing pipe age and material type by highlighting the assets in the GIS map. A GIS technician will click on the polygon overlying the assets missing attributes to view the plan documents and extract attribute data. Automated overlays may be used to evaluate the ability to assign asset date or assess consistency with the existing installation date and the overlay of subdivision and projects. This efficient map reference process uses the polygons and the linked images of the plans. The following figures illustrate the steps that will be taken:

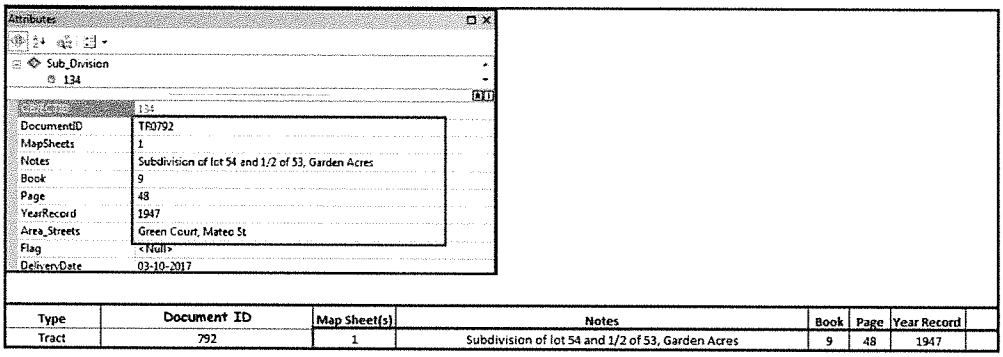
Step 1. Scan record/parcel maps



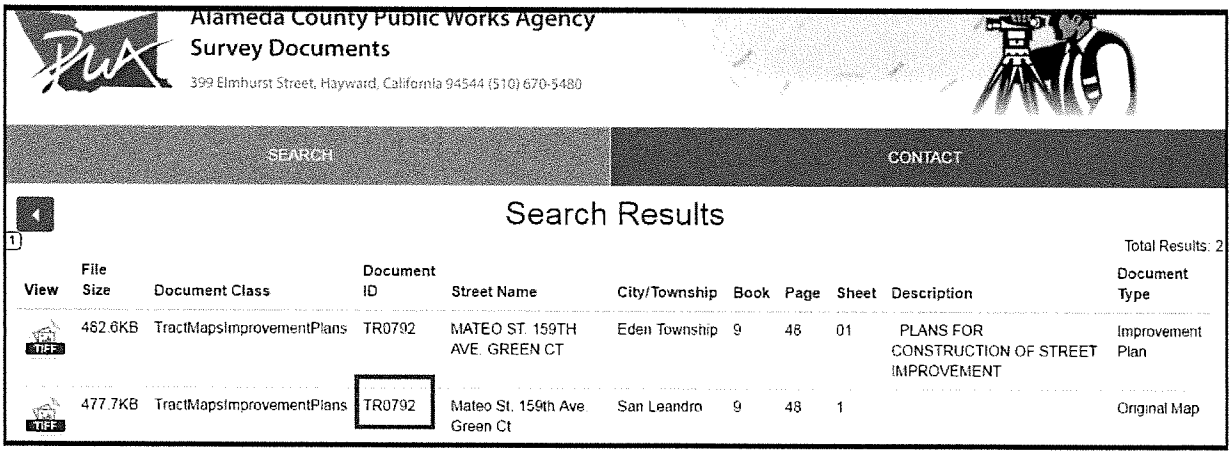
Step 2. Find associated polygon in GIS



Step 3. Input associated attributes to GIS database



Step 4. Verify link from the GIS



Project Polygon Development

Our team is familiar with the organization of the filing system used by the District for historical subdivisions, projects, and work order documentation based on a prior detailed analysis and recommendations for indexing this information performed by Psomas. The objective is to map the boundaries of projects to facilitate information access using GIS spatial indexing.

Our approach will accomplish this work as follows:

- Establish project file source information standards to enable us to select the appropriate as-built record and project date. We will work closely with the District staff to understand and document review procedures to identify the correct drawings and records from the files.
- Assist the District in the review of archived project files.
- The District will pull the documents from the folders that need to be scanned. To facilitate re-insertion, a cover sheet (photocopy) of the folder tab with the project name, number etc. should be used and clipped to the other copies.
- The Consultant or subconsultant (Hines EDM) will pick up the extracted document packets, scan, QC, and return the documents in the same organization as they were received.
- 3,500 folder packets are estimated – Folder cover sheets will be used to extract document attributes.
- 4,200 individual documents are estimated – Scanned in Color. Attributes may be extracted from individual documents when the folder level attribution is missing or is not relevant to the specific documents. Attributes created for each document include Project Name, Project Number, Project Type, and Facility Id.
- Scans and index information will be delivered to the District on an archival DVD and may be downloaded from the Consultant or subconsultant's (Hines EDM) secure project site. Billing will be based on a per document charge for delivered scans.
- We will map the polygon boundary for each subdivision and polygon in GIS and include a link to the scanned drawing and its associated attribute data. The County parcel base map and existing District GIS infrastructure will be referenced when drawing the polygons to assure accurate placement.

Proven off-shore resources for mapping services will provide quality data at a significantly reduced cost.

- Utilize off-shore mapping services for an economical polygon mapping boundary.
- Attach project PDF document)s) to the project polygon via hyperlink within the GIS mapping system.

Deliverables:

- Complete Asset Inventory, 50% and 100% complete.
- Creation of project polygons within GIS mapping system, with populated project data fields. The Project Polygon Arc GIS layer will be provided to the District at 50% and 100% completion **along with documents attached to the Polygons (via hyperlink).**

TASK 2 - FUTURE WATER DEMAND PROJECTIONS

The District is fortunate to have recently evaluated its current and projected water use through its 2015 Urban Water Management Plan (UWMP) and hydraulic model update. The updated current water demand data from the model, as well as projected retail population projections (Table 3-1 in the UWMP), current and projected retail potable and raw water demands (Table 4-1, 4-2, and 4-3), and SB X7-7 per capita water demand targets (Appendix A) in the UWMP will be used for this effort. We will develop and compare future demand projections using several approaches:

- Per Capita: projected population x per capita water use
- Connection: projected connections x water use per connection by type
- Land Use: projected development x water use per acre by category
- Dwelling Unit (DU): projected DU x water use per DU, residential demand
- Employment: projected employment x water use per employee, non-residential demand

We will also review the City of Citrus Height's General Plan, SACOG population projections, and other regional population and employment data in updating water projects for all use types.

Deliverables:

- Technical memorandum of Future Water Demands

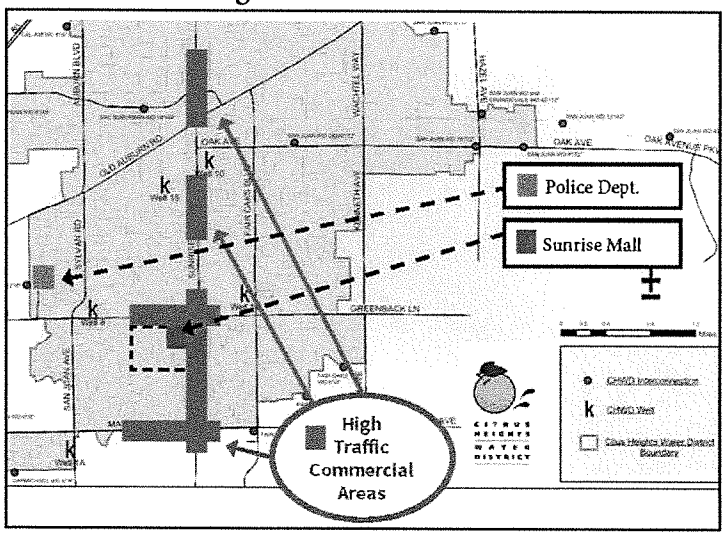
TASK 3 - WATER MAIN ASSESSMENT

Once the Asset Inventory and Polygon Development tasks have been completed, we will use the inventory and hydraulic model to identify the water mains in areas of the system that are of greatest consequence and at greatest potential risk. The questions we are seeking answers to are:

1. Where are the needed replacements located in the system (mapping step)?
2. What service conditions (pressure, corrosive soils) are these pipes under?
3. What risks do these pipes pose? Risk = (Likelihood of Failure) x (Consequence of Failure)

Consequence of failure can be great because of the extent of service disruption, or critical services that are disrupted, including hospitals, emergency response

Examples of High Consequence Areas in Citrus Heights Service Areas



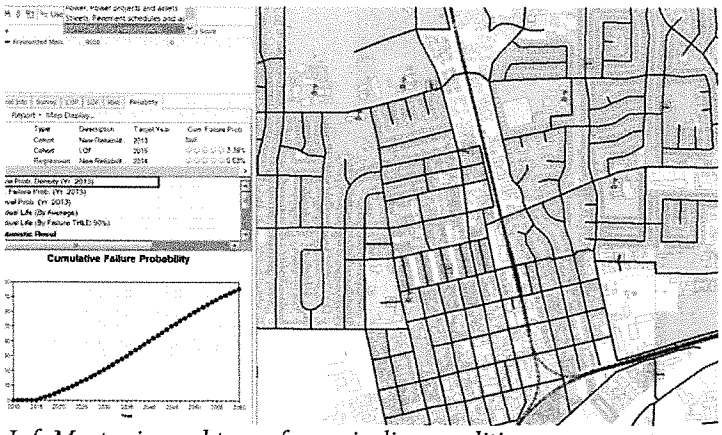
We will use the GIS mapping work performed under Task 1 to perform the following tasks:

- Leak History Analysis
  - Obtain leak repair work orders from the District's Cityworks system as points or address records
  - Associate leak work orders to water mains using GIS based analysis
  - Quantify # of leaks, leak density and location – produce map showing distribution
  - Produce report of leak density by material, age, pressure zone, and other factors to identify possible correlations of leaks with other known factors
- Consequence of Failure Map
  - Identify critical facilities (hospitals, manufacturing, etc.), source of - as "supply lines", areas without redundant supply, etc.
  - Map areas impacted by critical facilities, quantify miles of pipe by diameter meeting high consequence of failure criteria.

We will utilize Innovyze's InfoMaster software package (we have assumed that the District will purchase the software license directly for its future use) to perform the pipeline asset condition assessment. It will be used to identify system distribution piping that are at greatest risk for failure and with the highest failure consequence. InfoMaster takes into consideration pipe age, service levels, and pipe leak/break history.

We will set up the InfoMaster software on the District's network with the assistance of the District's Information Technology staff and perform validation testing.

We will provide on-site training at the Districts' office to District staff using District computers. Total amount of training shall be up to four (4) consecutive business days.



InfoMaster is used to perform pipeline condition assessments.

Review Existing Water Distribution System

In addition to review of available records during the asset inventory work, we will also review other available documents from the District, including the previous Water System Master Plan, and Capital Improvement Plan, to make sure we have the most current list of projects already completed and those yet to be completed. We will also review the District's main break data to see past trends.

We will use the District's updated and calibrated hydraulic model in InfoWorks, which our team has extensive experience with, to model flows throughout the system and how failure in the larger backbone transmission and distribution lines could impact service throughout the entire system. Various demand scenarios, including peak day steady-state and average day extended period simulations (EPS) conditions, will be modeled under different planning periods (current, 2030, and 2060). The model will also be used to verify service conditions, particularly pressure, that is critical to the water main assessment and replacement phasing plan.

We will conduct field inspections of all 17 creek crossings. Several of these are the larger connections to the SJWD and are also quite old, having been constructed back in the 1950's. These crossings therefore have significant consequence of failure risks associated with them, and therefore it will be important to inspect these larger crossings early and including the findings in the inventory and modeling work. We will use non-destructive ultrasonic wall thickness testing to provide a more thorough assessment of these crossings. For many years, Harris has worked extensively over the years with Subtronics, which specializes in subsurface utility engineering, on projects which have called for detailed pipeline inspection and condition assessments.

Develop a Field Inspection Program

At the completion of this assessment, we will develop a Field Inspection Program (FIP) to expand the completed pipeline inspections to critical underground areas that are identified as being at greatest risk. This may also include bringing a pipeline corrosion expert on the team who can help implement material testing and non-invasive testing procedures. Technology advances have improved the effectiveness of non-invasive testing procedures of all piping materials, including asbestos cement (AC) pipe. Acoustic testing can be used to help determine remaining wall thickness of pipes. Acoustic sensors are typically connected to fire hydrants, valves, or other exposed main features. In addition, a program for collecting coupon pipe samples to perform material testing, including scanning electron microscope/energy dispersive spectrograph (SEM/EDS) and phenolphthalein staining can be developed to compare with the non-invasive test results and validate the findings.

Deliverables:

- Technical Memorandum of Water Main Assessment options, costs, and recommended replacement strategy
- Field Inspection Program report (to be incorporated in Final Report)
- Technical Memorandum(s) for infrastructure challenges, upcoming local and regional water supply issues, and additional studies

Identify Infrastructure Challenges

As part of this task, we will also address other challenges that may impact the phasing and Implementation Plan. These include:

a. Infrastructure challenges: mains that are either deep or are difficult to access, upgrades in high traffic arterial roadways or commercial zones, potential environmental impacts associated with creek crossing improvements.
b. Local/regional supply challenges: expanding or bolstering interties with neighboring districts for emergency or drought response, planning for potential future supplies and deliveries (e.g. Sacramento River Regional Water Reliability RiverArc Project), management and banking of groundwater resources via the Sacramento Groundwater Authority.
c. Regulatory challenges: consideration of future regulatory requirements, including groundwater quality (Chromium VI, arsenic), lead service replacement, and others that might affect future supply sources and blending practices that could impact pipeline service conditions and expected life.

TASK 4 - PROJECT COST ESTIMATES

We will prepare cost estimates for the improvements identified during the water main assessment task. Through our extensive engineering and construction experience, Harris has amassed a large history of project costs, including engineering, administration, materials, and construction labor, for underground pipeline and other utility projects. Below are typical planning level project costs for pipeline projects, based on developed (paved) conditions (native conditions are expected to be minimal given the extent of development in the District's service area).

Pipe Size (inches)	Unit Price ($/LF/ dia inch)	Unit Price Range ($/LF)
6-8	18-20	108-160
10-24	16-18	160-432
30-42	14-16	420-672

It is important to keep in mind that while such "rule-of-thumb" cost estimates are useful, they also need to consider site specific factors, such as additional traffic control in high traffic areas, extent of the project (shorter segments will have higher unit pricing than longer segments based on proportional mobilization and other fixed project costs), and potential environmental measures (e.g. protection at creek crossings disposal of groundwater, if present).

Deliverables:

- Cost estimates as part of Task 3

TASK 5 - WATER MAIN REPLACEMENT PHASING PLAN

Once the District's assets and break history have been compiled and evaluated, the information is used to develop a decision guideline that generates the following output:

1. **What Needs to be Done**: What level of capital spending must be accomplished to fulfill the utility's mission? This represents the projects that staff would like to accomplish without regard to resource limitations.
2. **What Can be Done**: This level is tied to staffing resources and project management systems. Staffing resources can include non-traditional employees and staffing resources from outside the organization.
3. **What Can the District Afford:** This level is tied to what a utility believes its customers will accept in terms of rate increases.

The output linked to these questions are used to develop a prioritization of projects and ultimately an Implementation Plan that the District and its Customer Advisory Committee can support and can move forward with. The phasing plan will be done hand-in-hand with the funding/rate analysis. This is to confirm that a direct link is made between where the most critical infrastructure needs are and how they are to be paid for. This will also take into account the District's project delivery capacity and staffing availability to manage these projects.

Deliverables:

- Water Main Replacement Phasing Plan

TASK 6 - FUNDING STRATEGY/RATE OPTIONS ANALYSIS

The following sections were prepared by our subconsultant, Raftelis Financial Consultant, Inc. and outline the tasks to complete Funding Options for the District's Water Main Replacement to ensure financial sufficiency for the operations while funding the necessary capital costs to replace aging infrastructure that is coming to the end of its useful life. While tasks are listed consecutively, elements of tasks may be done concurrently with other tasks.

Project Initiation, Management and Data Collection

The Project Initiation task will begin the Study so that it progresses in an efficient and deliberate manner. Task 1 includes the collection and review of all relevant data and documents, a kick-off meeting, project management, and our quality assurance/ quality control process.

Data Collection And Kick-Off Meeting With City Staff

The kick-off meeting provides a solid foundation for the strategy framework and serves as a forum in which District staff can provide input on the District's current rate model and financial plan, financial instruments commonly used by the District, grant funding opportunities, schedule, and overall strategic objectives. A successful meeting ensures that project participants are in mutual agreement as to the project goals and expectations. RFC will develop a kick-off meeting package that contains the meeting agenda and presentation materials. Prior to the kick-off meeting, a detailed data request list will be submitted to the District so that the data needs for the funding strategies can be discussed at the kickoff meeting.

Ongoing Project Management

Consistent and competent project management is required to ensure project success and adherence to timelines and budgets. This task involves multiple interrelated work efforts that will require effective coordination between District staff, the Project Team, and the Customer Advisory Committee. Our management approach stresses communication, teamwork, objectivity, and accountability for meeting project objectives. Project management components are as follows:

A. Assignment of key project team members including:

A highly experienced management team, which includes **Habib Isaac as the Project Manager,** who has more than 14 years of consulting experience serving the public sector and is solely focused in the water and wastewater industry, with extensive experience in the cost of service principles of Proposition 218. Mr. Isaac has worked on numerous long-term financial plans and rate studies, including Encina Wastewater Authority, Inland Empire Utility Agency, City of San Jose Water Department, Elk Grove Water District, as well as the cities of Livermore and Galt. Mr. Isaac also worked in the Debt Management Department of San Diego and is well versed in bond-related financings.

Andrea Boehling will serve as Lead Consultant and will be responsible for facilitating a close working relationship with the District, will lead the development of the model framework, and ensure the District's current financials and elements of the District's existing rate model are successfully incorporated into the study. Mrs. Boehling has extensive analytical and modeling experience and has worked with public agencies for over 10 years. In the past year, she has worked with several agencies in California including the City of Santa Cruz, City of Livermore, the City of Galt, Western Municipal Water District, and Temescal Water District.

B. Project guidance will be ensured through:

- Adoption of procedures for regular and open communication between the project team members and District staff;
- Coordination of project activities between RFC, Coastland and District staff. Review of and feedback on project deliverables. RFC will conduct interim meetings to discuss project progress and present preliminary results via web conference utilizing GoToMeeting™, a web conferencing tool that enables clients and consultants to simultaneously view any application on a PC in real time over the Internet, to conduct the project more efficiently and minimize costs.
- Review of and feedback on project deliverables; and
- Assistance in developing and presenting project recommendations.

Meetings: One kick-off meeting

Deliverables: Data request list, Kick-off Meeting Discussion Package and Kick-off Meeting Minutes

Detailed Review of Financial Information & Consumption Data

Upon receiving the items requested in the data request, RFC will conduct a thorough review of the information provided by the District. It is important for the Project Team to get an understanding of the nature of both the revenue streams and the baseline revenue requirements over the study period to ensure a sound starting point for evaluating funding options as the Water Main Replacement program in incorporated into the funding strategy. These items will be folded into the Financial Plan and Rate Model with the ability to save multiple scenarios to determine the most viable funding strategy that meets the replacement program objectives while accounting for and reviewing the financial impact to the District's ratepayers.

RFC will request that the District provide account data and water usage data in wide format: account number, consumption occurred, the associated read dates, and customer class.

A key part of our study will be to forecast revenues under the existing rates and determine the incremental amount of revenue needed based on the specific level of funding required associated with each funding option.

Meetings: None

Deliverables: None

Financial Plan Development

The objective of this task is to project the District's revenue requirements for the study period. This major task requires an assessment of revenues based on the existing rate and fee schedules, an estimation of future revenue requirements, the District's ability to meet projected revenue requirements, and the determination of the level of revenue adjustments and additional capital funding for the Water Main Replacement.

Financial Plan Model Development

This task will include the projections of budget items, such as annual costs related to treatment, production, labor, power, materials, capital expenditures, plant investment, operating and maintenance (O&M) expenses, reserve contributions, depreciation and debt service using assumptions based on different economic factors and growth trends.

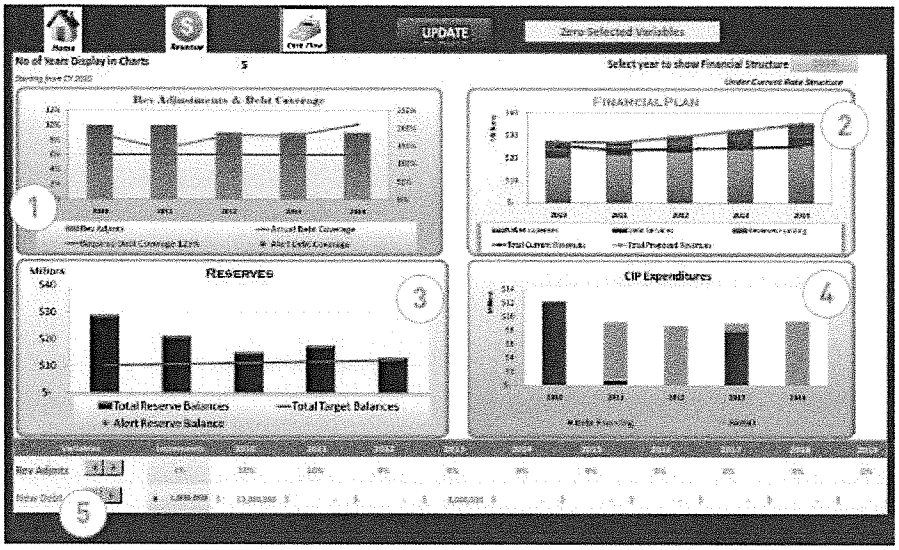
RFC will develop a forecast of revenue requirements over the planning horizon. This will include an estimate of revenues based on current rates and other non-operating revenues. The goal will be to develop multiple funding strategies that provides the District with at least three viable options for financing its Water Main Replacement Program. As part of our analysis, RFC will consider a wide spectrum of options ranging from a cash-based funding program to completely debt-funded. RFC will also provide guidance to the District with a comparative analysis between the various funding options up for consideration. Projecting revenue adjustments over a long planning horizon can illustrate future rate impacts and potential challenges to the District's financial situation. This will allow the District to adjust its implementation plan to smooth rate impacts and to maintain financial stability.

RFC will develop a multi-year cash flow analysis to determine revenue adjustments needed to meet projected revenue requirements for the planning period, while minimizing sharp rate fluctuations. The cash flow worksheet incorporates revenues generated from different sources, expenses needed to maintain the water system, any transfers in and out of the enterprise fund, and any coverage necessary to meet current and proposed debt service requirements.

The financial plan will be presented in an easy-to-understand format on an interactive 'Dashboard' which shows the impacts of various assumptions so that decisions regarding revenue adjustments, capital financing through pay-go or debt and reserve balances can all be made quickly and efficiently. A snapshot of the sample Dashboard is shown.

Several features of the Model Dashboard include the ability to show or indicate:

1. Revenue adjustments required for the next five (or more) years in order to meet debt coverage and target reserve balance(s)
2. Projected operating costs and revenue streams
3. Reserve balances and target levels according to City policies
4. Different funding sources of CIP, PAYGO, or debt financed
5. Spin buttons (dynamic selection options) for scenario analyses



Financial Plan Workshop With Staff

RFC will conduct a series of conference calls with Project Team to develop different financial plan scenarios. The goal of these conference calls is to identify the key issues and each funding strategy option that will be addressed at the Financial Plan Workshop with the District's management team/board. During the workshop, RFC will present the identified each funding strategy and discuss the benefits and challenges associated with each scenario. The goal of this task is to develop a final recommendation of the financial plan for the water enterprise during the study period.

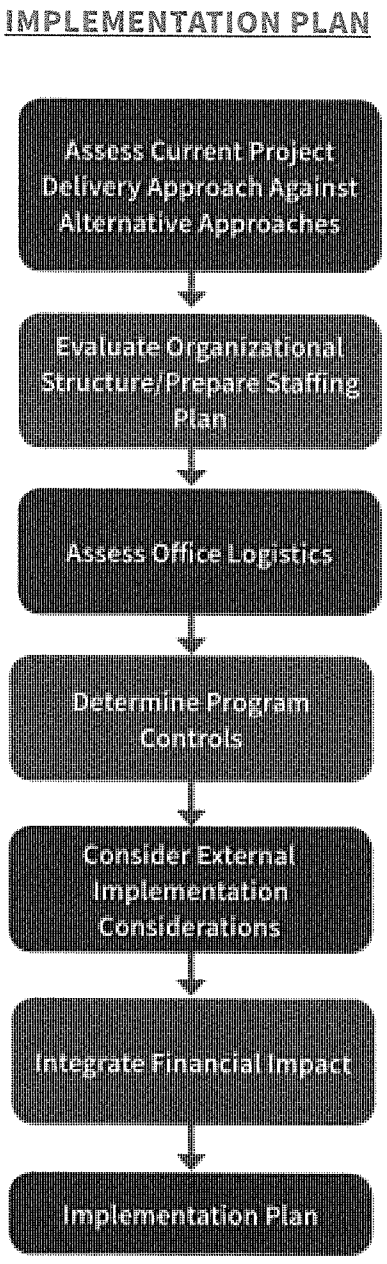
Meetings/Conferences: Conference calls as needed with District Staff and one (1) Funding Strategy Workshop

Deliverables: Draft Financial Plan Model for Water Enterprise in Microsoft Office Excel™

TASK 7 - IMPLEMENTATION PLAN

Like our approach for the overall Plan, the Implementation Plan will be grounded in the principles and values of the District's Strategic Plan.

In addition to a creation of a capital plan for main replacement and an associated funding plan, a specific Implementation Plan will be created ensuring that capital main replacement projects are constructed and put into service as planned.



In parallel with the development of the main replacement plan, we propose to evaluate the capacity of the district to undertake some level of capital spending. The ability to execute capital programs is significant because it can have a significant impact on the financial operations of a utility. Rates that are set anticipating high levels of capital expenditures may cause excess revenue problems, i.e. excess reserves, if those capital projects are not executed as planned. Worse yet, stakeholders can lose confidence in a utility that asks for high rate increases and then cannot spend the money. Conversely, rates set too low will not support needed capital projects and could put the system at risk in the long run.

Elements of the capacity assessment include:

- Current capital delivery approach
- Use of alternative delivery approach
- Current staff capacity/staff organization
- What is needed for increasing capacity
- Procurement capacity
- Project controls strategy
- Document management

Results:

- Key performance metrics for tracking capital delivery progress from year to year
- Cost estimates to incorporate into annual financial planning and budgeting expectations

The graphic to the left is our recommended approach for developing the Implementation Plan. The effort for developing this plan would span the two critical tasks of developing the Main Replacement Phasing Plan, because staffing levels will fluctuate depending on how slow/fast main replacement proceeds, and Funding Strategy/Rate Options because a balance of what needs to be done and what is affordable will need to be considered.

Our team members have worked with utilities in implementing their capital plans. At one utility, Ann Hajnosz was part of a team that completed a water master plan and rate study; the client later engaged Ann to lead an assessment of staff capacity to implement the proposed capital plan due to the close relationships she developed with staff in the course of completing the master planning efforts and her comprehensive knowledge of both their capital plan and associated financial/rate impacts. Ann facilitated 30 interviews with staff across the organization, including with Board members. She and her team assessed staff resources as well as technology, space and system process resources. The impact of this effort was the development of a series of Recommendations, Benefits and Fiscal Impacts for each division of the utility. Example recommendations fall under the broad categories of:

- Leadership and Communication
- Work Procedures and Processes
- Resources
- Project Management and
- Training, Tools and Technology

These categories will be adjusted to fit the specific needs of the District.

Deliverables:

- Final Report summarizing findings from previous tasks. Technical memoranda from those tasks will be incorporated as individual chapters or attachments
- Implementation Plan

TASK 8 - PUBLIC ENGAGEMENT/ STAKEHOLDER OUTREACH/ CUSTOMER ADVIORY COMMITTEE/ PRESENTATIONS:

"Early engagement and no surprises" is our motto for this task. Early and effective public engagement with stakeholders and stakeholder groups such as the CHWD's Citizens' Advisory Committee (CAC) is a best management practice in the development of water master plans. This is not merely an exercise in notifying stakeholders of water district plans; the goal is to receive input and gain their buy-in to the Plan. To support the most successful public engagement and stakeholder outreach for this project, we propose the following key elements:

- **Strategic Plan Consistency:** Work with the District and Project 2030 technical teams to ensure that the Public Engagement Process is consistent with the District's Strategic Plan. The Strategic Plan has been developed during a public process previously designed and facilitated by Laura Mason-Smith, of Mason-Smith Success Strategies, who, as the lead consultant for the Project 2030 Public Engagement Process, will partner with the Harris & Associates Team, including Raftelis Financial Consultants, Inc.
- **Introductory Project Scoping Meeting:** Design and facilitate a Project 2030 Public Engagement Process introductory meeting with the District's Project 2030 Project Manager, the staff project team, and the Harris & Associates Public Engagement team to agree on the overall scope, roles, key elements, timing, and deliverables for the Process.
- **Citizen's Advisory Committee Formation:** Assist the District in developing and implementing its strategy to form a diverse Citizen's Advisory Committee (CAC) that is balanced and representative of District stakeholders and their varied perspectives. Acting as a focus group, the Committee will provide input throughout the study, consider the various alternatives and policy recommendations, and make a policy recommendation to the CHWD Board of Directors at the conclusion of the Study. Mason-Smith will work with the District's Project 2030 team and the Harris & Associates consultant team to develop a CAC charter, clarify roles, and manage expectations both of what is expected from stakeholders and what stakeholders can expect from the Study process.
- **CAC and Board Meetings Planning and Follow-up:** In advance of each CAC and Board update meeting, work with the District's Project 2030 team and the Harris & Associates consultant team to clarify the desired outcomes for each meeting, develop the meeting agenda and storyboard related activities, and identify/review the materials that will be covered at the meeting. Following each meeting, develop a meeting summary and provide that along with the meeting materials to the District's communications and web team for their dissemination.
- **CAC and Board Meeting Implementation:** Conduct six regularly scheduled, facilitated public CAC meetings of no more than three hours each throughout the project to (a) educate and inform stakeholders of CHWD's and the Project 2030 background information, plans, project status,

and alternatives for consideration; (b) identify questions that need to be answered; and (c) gather stakeholder input and support for the Project. Update the Board of Directors on project status at the 30%, 60%, and project completion levels.

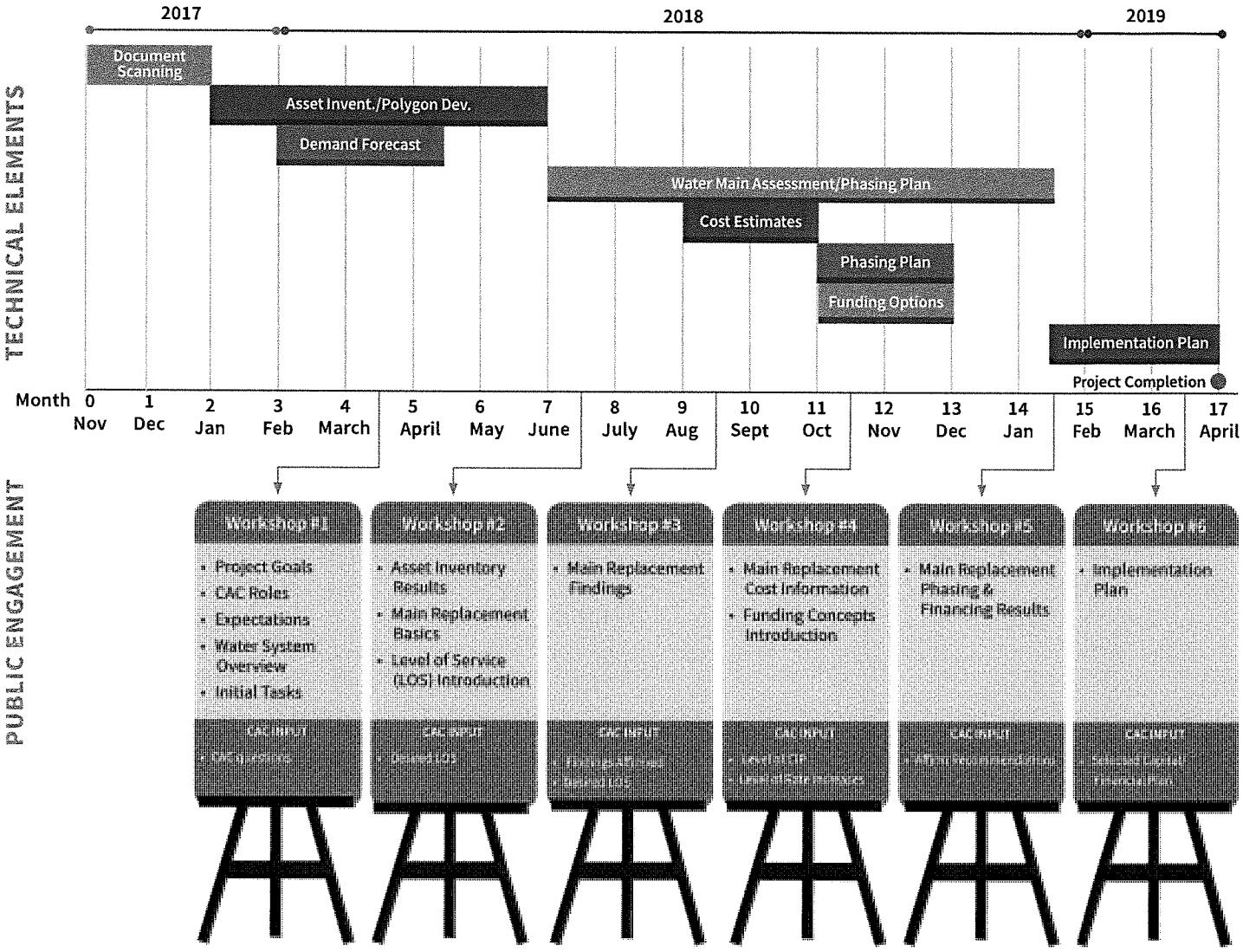
- **Market Research and Public Opinion Survey:** Should the District decide to move forward with conducting a Marketing Research Public Opinion Survey, incorporate the process overview and results into the appropriate CAC meeting for the Committee's consideration. This effort will be included as part of add/deduct item #2.
- **Focus on the Greater Good:** Incorporate the input from the CAC throughout the study for the greater good of all District customers. Recognizing that CAC members likely will have different perspectives, ideas, and concerns, create a productive CAC meeting environment that encourages input and demonstrates respect for all the diverse voices in the room. Strategize with the CAC to build consensus on recommendations to the Board that have strong CAC support.
- **Communication and Media Strategy Support:** Support the District's communication team in ensuring that the CAC and the public are kept informed on an ongoing basis by providing clear meeting and project materials -- such as CAC meeting agendas, handouts, and summaries; project overviews; questions and answers; alternatives being considered; results to date; public input; and recommendations – which can be posted by the District's communications team to the CHWD website Project 2030 Study Page and other social media as desired by the District.

Schedule: The graphic on the next page illustrates our vision of how the CAC meetings will unfold over the course of the fifteen month project timeline in parallel with the key tasks of the Study.

Deliverables:

- Public Information and Public Engagement Technical Memorandum
- Meeting minutes for each (6) CAC meeting

2030 WATER MAIN REPLACEMENT PROJECT
PUBLIC ENGAGEMENT/CAC WORKSHOPS



9. STUDY SCHEDULE

This can be found in the Schedule Section.

10. ADD/DEDUCT ITEM #1 - SYSTEM-WIDE PRESSURE CONTROL ANALYSIS (WITH AND WITHOUT POWER GENERATION)

For this task, our team will consider the feasibility, advantages, and disadvantages of implementing and changing pressure control operations throughout the system. We would start by reviewing and revisiting the analysis from the 1989 CH2M Hill Pressure Reducing/ Sustain Station Study. This study looked at several options for reducing pressure, including new pressure reducing station or power generation station on the 42-inch delivery main pipeline, or creation of two pressure zones by installation of pressure reducing stations throughout the District's system and closing other valves. This study considered different pressure conditions during winter and summer demand seasons. With the updated hydraulic model, we will be able to review and update this analysis based on current and projected future service conditions.

The CH2M Hill report also took an initial look at power generation facilities. This was also revisited most recently in the 2016 GEI report In-conduit Hydropower Opportunities in SMUD's Service Territory. The report concluded that the District's most viable site, the 42-inch C-Bar-C Park, did not meet SMUD's revenue requirement for levelized cost of electricity (LCOE). The study also identified several barriers to these projects, including interconnection costs. It also encourages exploration of third party ownership to take advantage of potential investment tax credits as well as depreciation deductions that can lower the LCOE.

We are prepared to reach out and work with in-line hydro vendors, including NLine in El Dorado Hills, to review the feasibility of in-line power generation. This feasibility study would include the following:

- Technology assessment and identification of the most cost efficient and commercially reliable hydroelectric generation equipment
- Equipment cost quotes from turbine manufacturers
- Preliminary layout of power generating facility
- Preliminary operating description
- Identification of control strategies (PLC logic and SCADA)
- Description of electrical protections
- Interconnection analysis and assessment of probable interconnection costs
- Cost estimate for construction of the water-to-wire package including interconnection
- Based upon the technology chosen, estimate the operations, maintenance and replacement costs of the equipment
- If necessary, prepare a financial proforma (30 years) and estimate the replacement cost and schedule for the equipment

11. ADD/DEDUCT ITEM #2 - MARKETING REASEARCH/PUBLIC OPINION SURVEY

See attached scope.



GODBE RESEARCH
Gain Insight

PROPOSAL TO CONDUCT A MARKET RESEARCH SURVEY OF RESIDENTIAL PROPERTY OWNERS

Presented to the Citrus Heights Water District and Harris & Associates

August 4, 2017

BACKGROUND AND EXPERIENCE

Godbe Research Background

Legal Name & Address of Company
Godbe Corporation -- dba: Godbe Research

Corporate and Project Office:
1575 Old Bayshore Hwy.
Suite 102
Burlingame, CA 94010
p. 650-288-3020
f. 650-288-3003
w. www.godberesearch.com

Year Founded
Godbe Research was founded in January of 1990 and has been in business continually for more than 27 years.

Corporate Structure
Godbe Research is not a subsidiary of a larger 'parent company' and the firm has two principals who are the only shareholders.

Corporate and Project Office:
Godbe Research maintains three offices, including our corporate office in Burlingame, CA; as well as project offices in Reno, NV and Bellevue, WA. All work for the Citrus Heights Water District (CHWD or District) and Harris & Associates will be performed from our regionally available Burlingame office from which Bryan Godbe (President) and Charles Hester (Vice President), our potential project managers, are based.

Number of Employees
Godbe Research has a total of six (6) full time employees. Four employees work from our Burlingame corporate office and one employee each work from our Reno, NV and Newport Beach, CA project offices.

Firm Standing
Godbe Research is a California Corporation and is in good standing with the California Secretary of State. Godbe Research has never filed for bankruptcy during the life of the firm and has never been a defendant in any type litigation, arbitration, or settlement, past or current.

Services Provided
Godbe Research is a full-service public opinion research and voter/property owner polling agency. We offer expertise in all accepted quantitative (telephone, Internet, mail and Intercept) and qualitative (focus groups, one-on-one interviews, triads) research methodologies, as well as hybrid studies (more than one methodology) and research consulting.

Godbe Research does not provide political consulting, education and outreach, financial advisory, legal, engineering, planning, or underwriting services that could be a conflict of interest with our resident, voter, and property owner survey processes by having future project dollars tied to the results and recommendations from our public opinion and market research studies.

Conflict of Interest Statement
Godbe Research does not have any current or foreseen clients or projects that could present a conflict of interest in providing the CHWD with reliable and unbiased research services for this specific market research study of District property owners.

Additional Information
Formed in 1990, Godbe Research is a California Office of Small Business and DVBE Certification and Santa Clara Valley Transportation Authority (VTA) certified Small Business Enterprise (SBE), and is an equal opportunity employer.

Godbe Research Experience

Godbe Research, a State of California certified small business enterprise (SBE), was founded in January of 1990. The firm is a full-service public opinion research agency that offers its clients extensive experience in research studies to address community satisfaction and priorities, ballot and revenue measure feasibility, property owner assessments, community needs assessments, public education and outreach strategies, strategic and general planning efforts, customer and user satisfaction, public sector marketing efforts, and other customized client needs. Our offices in Burlingame, CA (Corporate), Reno, NV (Southwest), and Bellevue, WA (Northwest), house a staff of highly trained and experienced researchers, and a commitment to providing superior quality research and client services.

The firm has been employed by public and private sector clients throughout California and the western United States, and has extensive experience in all accepted quantitative (telephone surveys, mail surveys, Internet surveys & intercept surveys) and qualitative (focus groups, in-depth interviews & triads) research methodologies as well as hybrid studies involving more than one methodology, the analysis of secondary research, and research consulting. The combined expertise of the Godbe Research team spans more than 50 years in the field of public opinion research. The Godbe Research Team consists of the firm's President (Bryan Godbe), Vice President (Charles Hester), and a staff of Senior Research Managers, Senior Statistical Analysts, and Research Analysts. Each team member has the education and experience commensurate with their position at Godbe Research, and the team regularly teaches, authors, and speaks in the field of survey research. In short, you will not find a more experienced and educated team in public opinion research for local government agencies.

Over the 27+ year life of the firm, Godbe Research has conducted more than 2,500 public opinion research projects to evaluate topics such as community satisfaction, quality of life, revenue and ballot measure feasibility, service and infrastructure priorities, property owner assessment feasibility, and evaluating community needs. Our specific experience includes voter and property owner polling for revenue measure processes (sales taxes, bonds, parcel taxes, property owner assessments, utility users taxes, fees, etc.) for clients such as the City of Rancho Cordova, County of Marin Public Works (water/stormwater related), Pajaro River Flood Control Consortium (stormwater related), County of Stanislaus, El Dorado Hills Community Services District, KcKinleyville Community Services District (water related), City of Placerville (water/sewer related), City of Roseville, City of Folsom, Folsom Cordova Unified School District, Washington Unified School District, City of Elk Grove, City of Stockton, Town of Moraga (water/stormwater related), City of Davis, County of Yolo, City of Fairfield, City of Suisun City, County of Solano, City of Modesto, County of Merced, County of Stanislaus, Northstar Community Services District, San Juan Unified School District, Sacramento City Unified School District, City of Tracy, and many others.

Our experience with water, stormwater/wastewater, clean energy, recycling/solid waste, air quality, and other providers of environmental quality services is also extensive. In addition to the clients listed above, Godbe Research has conducted market and other public opinion research studies to inform and support public policy, customer satisfaction, strategic planning, marketing and outreach, awareness and perception, and other needs for clients such as the Sacramento Regional County Sanitation District/Regional San, San Francisco Public Utilities Commission/SFPUC, Silicon Valley Clean Energy/SVCE, City of Davis Solid Waste, RecycleWorks San Mateo County, Los Angeles County Department of Public Works (water and wastewater related), City of Modesto Water Quality Control, Los Transco Water District, Bay Area Stormwater Management Agencies Association, Santa Clara County Department of Integrated Waste Management, Bay Area Air Quality Management District, South Bayside Waste Management Authority, City of Thousand Oaks (used oil/water quality related), and dozens of others.

As an organization, Godbe Research is a small business and we manage our commitments wisely. This means managing our project load so that our President or Vice President can be directly involved in each project we conduct at the project manager level. Similarly, we do not take on so many projects that we need to change team members or remove team members from current projects. Thus, Godbe Research is committed to allocating the team members outlined in this proposal for the duration of this project, including having either Bryan Godbe (President) or Charles Hester (Vice President) act as the project manager and day-to-day contact from Godbe Research for the duration of this research project for the CHWD and Harris & Associates.

PROJECT MANAGER

Reliable public opinion and market research results depend on having a firm that understands the complexities and nuances of quantitative survey research design, including sampling theory, questionnaire design, and data analysis. Accordingly, the team at Godbe Research is comprised of recognized experts in survey research design and implementation, and for this market research survey of District property owners for the CHWD and Harris & Associates, we will assign one of our most experienced project managers, Bryan Godbe (President) or Charles Hester (Vice President).

Charles and Bryan have designed and conducted more than 250 survey research projects in the past three years alone for California cities, counties, school districts, special districts, and other public-sector agencies, including each of the Godbe Research clients listed throughout this proposal. Bryan or Charles will execute all stages of the survey project, including sampling design and questionnaire development, overall project management, analysis, reporting, and presentations, and would be the day-to-day contact for the CHWD and Harris & Associates. Resumes for Bryan and Charles have been provided below and they will be assisted by additional Godbe Research team members, as needed.

Bryan Godbe, M.A.
President and Principal Researcher
Co-founder of Godbe Research, Mr. Godbe has over 30 years of experience in public opinion research, public relations and government affairs. In this capacity, he has conducted public opinion and market research projects at the national, state, and local levels including projects for the Cities of San Francisco, San Diego, Los Angeles, Sacramento, and San Jose (California) as well as Portland (Oregon), Seattle (Washington), and Henderson (Nevada).

Mr. Godbe received a Silver Anvil Award from the Public Relations Society of America for the development and implementation of an outstanding government affairs program on behalf of the Contra Costa Water District. This program was based on Mr. Godbe's extensive research including baseline research, focus groups and three tracking surveys. In addition, Bryan is currently working with or has recently worked with the Los Trancos Water District, Sacramento County Sherriff's Department, City of Rancho Cordova, Folsom Cordova Unified School District, City of Modesto Water Quality Control, County of Marin Public Works, and others on market research or revenue measure survey projects.

Prior to founding the firm, Mr. Godbe was Vice President of Research at a California based public relations firm. Mr. Godbe also previously served as the Senior Research Consultant at the Center for the Study of Los Angeles, at Loyola-Marymount University. He has a Master's Degree from the University of Michigan where he studied survey research methodology at the Institute for Social Research; and a B.A. degree from the University of California, Berkeley.

Charles Hester
Vice President
As the firm's Vice President, Mr. Hester has more than 20 years of experience in public opinion and market research, specifically in the areas of project management, project support, data analysis and interpretation, partner relations, business development, and client management. During his 17 years at Godbe Research, Mr. Hester has been a manager, director, and most recently vice president, and has been instrumental in the success of the firm's primary office locations in California, Nevada, and Washington State. He has also been responsible for the strategy and scoping of each of the

quantitative and qualitative research studies conducted by Godbe Research for the past 15 years, and has managed many of firm's high-profile research studies.

Charles recently managed a major market research project related to water and sewer services for the San Francisco Public Utilities Commission which included topics on water and sewer line replacement among San Francisco residential and commercial property owners. He also managed the 2013 West Hollywood community survey for Godbe Research as part of a project team for the larger 2013 West Hollywood Community Study. The larger Community Study won Co-Project of the Year at the 2013 International Association of Public Participation (IAP2) conference in Salt Lake City, UT. In addition, Charles has recently managed other quantitative and qualitative market research studies for clients such as the Sacramento Regional County Sanitation District, Silicon Valley Clean Energy, Town of Moraga stormwater replacement project, San Joaquin Council of Governments, City of Davis, and others.

Prior to joining Godbe Research, Mr. Hester held positions at other similar firms and he also previously started and sold a small business in Long Beach, California. Charles received his Bachelor of Science degree in Economics from the University of California at Riverside with a minor in Environmental Sciences.

PROPOSED SCOPE OF WORK

Godbe Research is a recognized leader in public opinion and market research studies for California cities, school districts, counties, special districts, transportation agencies, and other local government agencies. Given our experience, we understand that each project's ultimate success depends on recognizing the individual and unique research needs of our clients and then developing a customized project plan to address those specific needs.

Research Objectives

Before beginning any research project, Godbe Research spends a significant amount of time reviewing each client's specific research objectives to choose the most appropriate research design. Based on our preliminary understanding of the project from information provided by the CHWD and Harris & Associates, we understand that there are several potential research objectives to be addressed by this market research survey process, the most important of which include evaluating property owner opinions on a variety of issues related to the CHWD Project 2030 Water Main Replacement Study (Project 2030), including potential fee increases and other potential options for funding Project 2030. A formal discussion of the specific research objectives will be refined between Godbe Research, the CHWD, and Harris & Associates at the project kick-off meeting where we can discuss Project 2030 and CHWD survey needs in greater detail.

Methodology Discussion

To accomplish the goals of the CHWD for this market research survey of property owners, Godbe Research recommends the development and implementation of a quantitative hybrid (Internet and telephone) survey of residential property owners that live in the District that will leverage landlines, cell phones, and email addresses for the most comprehensive and inclusive sampling design possible. Our recommendation is designed to maximize potential participation while still only allowing CHWD residential property owners to participate is to leverage the State voter file and other third-party list sources, where we can obtain self-reported and preferred contact information for known District property owners, including landlines, cell phones, and email addresses as homeownership is a variable flagged in the voter file and being registered to vote is an excellent proxy for residential property owners who would likely participate in a benefit assessment process.

This hybrid survey methodology has worked well for other providers of municipal environmental related services such as the San Francisco Public Utilities Commission, Sacramento Regional County Sanitation District, Silicon Valley Clean Energy, Marin County Public Works – Flood Control Division, Los Trancos Water District, and others. It has also worked well for our public-sector clients in the Sacramento/Stockton metropolitan regions including the City of Rancho Cordova, Sacramento County Sheriff's Department, Folsom Cordova Unified School District, Washington Unified School District, County of San Joaquin, City of Stockton and others.

The hybrid Internet and telephone survey will maximize demographic representation by targeting property owners based on their preferred survey modality, which will likely skew younger for the Internet version of the survey (ages 18 to 49) and older for the telephone version of the survey (ages 50+). Again, the voter file is recommended as a starting point for our sampling design, as it is the best database of contact information, including landlines, cell phones, and email addresses for known CHWD property owners given that each voter tied to a physical address within the District to establish eligibility for voting, homeownership is a variable flagged in the voter file, and we can look at voting

propensity (past participation in elections) among homeowners who are voters as the best proxy for who would participate in a benefit assessment process.

Finally, Godbe Research has also development mechanisms to prevent issues that have plagued Internet surveys in the past. This includes mechanisms so that a given property owner can only take the survey via one modality (Internet or telephone), cannot take the Internet survey from more than one device or multiple times from the save device, and to prevent property owners from forwarding the Internet version along to family and/or friends for them to complete.

Scope of Work

Below, Godbe Research has crafted our recommended scope of work for the CHWD and Harris & Associates to illustrate the types of considerations that go into each of our residential property owner surveys. While each of our projects is customized to the needs of a given client, there is a specific and proven process to conducting market research to evaluate project support and potential fee increases among the appropriate electorate based on the type of revenue measure, assessment, or fee under consideration. Accordingly, specific services for the property owner survey are thus envisioned to include:

- Conducting an in-person kick-off meeting with the CHWD and Harris & Associates, as well as additional meetings, conference calls, and correspondence to discuss the research objectives and other aspects of the property owner market research survey in detail.

- Reviewing property owner, registered voter, and residential demographic data in the District, any related previous opinion research data, and other information that will help to inform and support this current survey process.

- Designing and refining a survey instrument of approximately 15 to 20-minutes in length so that it addresses the research objectives of the Citrus Heights Water District and Harris & Associates for this specific market research study.

    - The survey development is done through an iterative process between Godbe Research, the CHWD and Harris & Associates with multiple points for input, review, and approval prior to finalizing the survey.

    - The survey will be designed to be formatted for both Internet and telephone survey modalities as a 'hybrid survey' and both versions of the survey will be identical.

    - Finally, as part of the survey development process, we can also provide guidance for the content of any discussion guide to be developed to obtain the input of commercial and other non-residential property owners in a separate outreach process to be conducted by the Harris & Associates team.

- Programming, refining, and testing the Internet version of the survey instrument using our Internet survey software package. This will be done by our team of IT and programming experts.

- CATI programming the survey version of the survey instrument for efficient and accurate data collection, and training telephone interviewing personnel on the questionnaire and interviewing protocol.

- ❖ For our telephone interviewing projects, Godbe Research uses only live interviewers who have been trained on the survey questionnaire and who are located in the western United States.

- ➢ Pre-testing the survey instrument in both modalities to ensure that the questions and response codes are understandable to respondents, and to ensure that the survey length coincides with the budgeted survey length for the project.

- ➢ Development of a recruitment email for the Internet version of the survey and working with the CHWD and Harris & Associates so that Godbe Research can send recruitment emails to residential property owners with known email addresses in the voter file, property ownership database or that can be match through third-party list sources.

  - ❖ The recruitment email will have the @chwd.org email root for familiarity and should be signed by the CHWD General Manager or Project 2030 Project Manager to convey the importance of the survey to District residential property owners.

  - ❖ In addition, we can also match any internal contact lists the CHWD may have compiled for its customer service, billing, or other needs and to match that list to the property owner files, so that we can include additional property owners that do not have email addresses, cell phones, or landlines on file.

- ➢ Development of a stratified and clustered listed sample of residential property owners in the District appropriate to the research objectives of this specific market research study.

  - ❖ We will receive the property owner file from Harris & Associates or the CHWD and will use the contact information contained therein as well as matching the property owner file to the voter file and third-party list sources to maximize the type and amount of contact information we have for District residential property owners.

  - ❖ As a starting point and given that property ownership is a variable flagged within the voter file, we have identified that there are a total of 19,021 residential property owners who are also registered voters in the District. Of these property owners, we have email addresses for roughly 3,000 proper owners or roughly 16% of property owners as well as cell phones for roughly 2,900 property owners or 15% of property owners. The relatively small number of email addresses and cell phone numbers will increase the importance of the hybrid survey approach, although through a third-party match, we might be able to get the percentages of emails and cell phones up to 33% for each contact method.

- ➢ Conducting approximate 15 to 20-minute Internet and telephone interviews with 500 (n=500) total Citrus Heights Water District property owners according to a strict interviewing protocol and our approved sampling design.

  - ❖ A sample size of 500 will provide for a margin of error of no greater than +/-4.4% at the 95% confidence level, when looking at all residential property owners in the District.

- Merging the Internet and telephone data files, as well as processing and weighting the data to adjust for population distribution and strategic oversampling, as needed to reflect the residential property owner populations of the District.

- Developing a topline report of aggregate findings for the CHWD. We will also meet with the District and Harris & Associates to review the topline/aggregate survey results.

    - This will help our more detailed analysis and reporting to be of maximum value to Harris & Associates and the CHWD in deciding on the final timing, make-up, and content, and outreach of any potential future fee increase based on property owner support.

- Analyzing the survey results and preparing a report of findings, conclusions, and recommendations for the CHWD and Harris & Associates draft and final formats. The report will directly address the research objectives outlined for this specific to the research objectives of the Project 2030 Study, including any recommendation on whether a potential future fee increase would be supported or opposed (protest vote) by District residential property owners during a benefit assessment proceeding process.

- Presenting the results and recommendations from the market research survey of residential property owners to the CHWD and Harris & Associates.

    - Given that the survey would likely inform future Harris & Associates team activities and how the Project 2030 process might unfold, this presentation can be a stand-alone presentation or a larger Harris & Associates team presentation, as determined by the CHWD and Harris & Associates.

- Post-survey consulting on the results and recommendations from the market research survey of residential property owners throughout the range of planning, engineering, outreach, assessment proceeding, and other potential activities, as need by the Citrus Heights Water District and Harris & Associates.

    - This service will be provided, as needed, to the CHWD and Harris & Associates without any additional project fees.

PROJECT SCHEDULE DISCUSSION

Project Meetings

Based on our typical project approach and after a preliminary review of the needs of the CHWD and Harris & Associates for the market research survey, Godbe Research expects numerous in-person and conference call meetings during the survey process. This will likely include an in-person meeting to kick off the survey portion of the Project 2030, a conference call or in-person meeting (or both) to review the draft questionnaire, a conference call or in-person meeting to review the topline report, a conference call to discuss the draft report, and an in-person presentation of findings to the District. We are also open to additional meetings, as needed, by the CHWD and/or Harris & Associates as part of the survey process.

Project Time Line

Because of our experience in conducting similar surveys for a wide variety of local government agency clients, Godbe Research generally prefers to conduct a hybrid survey processes over about an eight-week time frame, however, we can discuss a more aggressive schedule if needed during the project kick-off meeting. Below is a general time line that reflects major project mile stones and tasks in number of days. A formal time line will be provided a few days after the project kick off meeting, where we can discuss scheduling needs and meeting dates in greater detail. Finally, please note that CHWD and Harris & Associates meetings (e.g. project kick off meeting) and tasks (e.g. questionnaire review) have been *italicized* for easy review.

Godbe Research Tasks	**Approx. Time**
Project Kick-Off Meeting w/ the CHWD and Harris & Associates	*1 Day (1 to 2 hours)*
Review of Previous Surveys and Other Data	2 to 3 Days
Questionnaire Drafting and Refinement	8 to 10 Days
Sample Development and Matching (concurrent with questionnaire drafting)	2 to 3 Days
Draft Survey Review Meeting w/ the CHWD and Harris & Associates	*1 Day (1 to 2 hours)*
Questionnaire Revisions (if needed)	4 to 6 Days
Survey Pretest	1 Day
Programming and Testing of Internet Version	3 to 5 Days
CATI Programming of Telephone Version	2 Days
Data Collection / Interviewing (both modalities)	6 to 10 Days
Initial Data Processing	3 to 5 Days
Topline Report Meeting w/ the CHWD and Harris & Associates	*1 Day (1 to 2 hours)*

Analysis and Reporting	10 to 15 Days
Draft Report Review w/ the CHWD and Harris & Associates	*1 Day (1 to 2 hours)*
Report Changes (if needed)	3 to 5 Days
Presentation of Survey Findings	*After Final Report Delivery*

PROPOSED PROJECT COSTS

Godbe Research takes great pride in delivering reliable and practical research projects 'on time and on budget'. In doing so, we prefer to provide a firm, fixed fee format for our cost proposals. This is because the primary determinants of any public opinion research survey are sample size and survey length, which are most accurately presented using a fixed-fee format, rather than arbitrary hours that can be off by 50% or more based the potential needs of our clients.

Based on our understanding of the needs of the Citrus Heights Water District for this specific survey process, Godbe Research has provided costs to conduct a 15 to 20-minute survey comprised of 500 (n=500) total District residential property owners, using a hybrid Internet and phone survey methodology. This would provide for a maximum margin of error of no greater than +/-4.4% at the 95% confidence level when looking at all residential property owners in the District. Using similar studies in the Sacramento/Stockton metropolitan regions, we would expect to be able to collect approximately 33% to 50% of interviews via the Internet modality and approximately 50% to 67% of interviews using the telephone modality (landlines and cell phones).

The prices below reflect the all-inclusive fees for Godbe Research to complete this market project -- the overall costs will not exceed those shown below, provided that the parameters of the project (e.g. sample size, survey length, hybrid survey methodology, etc.) conform to those outlined in this proposal. Should project parameters, CHWD and/or Harris & Associates needs change, we will be happy to provide amended costs prior to proceeding.

Hybrid Internet and Telephone Survey of 500 (n=500) District Property Owners

Project Task	15-min.	18-min.	20-min.
Listed Voter / Property Owner Sample	$1,000.00	$1,000.00	$1,000.00
Listed Email Sample	$800.00	$800.00	$800.00
Third Party Email and Cell List/Matching	$800.00	$800.00	$800.00
Internet Version Programming/Testing	$4,250.00	$4,500.00	$4,750.00
CATI Programming of Telephone Version	$1,125.00	$1,350.00	$1,500.00
Internet Version Recruitment	$750.00	$750.00	$750.00
Internet Version Hosting	$500.00	$500.00	$500.00
Telephone Interviewing	$6,800.00	$7,600.00	$8,400.00
Data Processing	$800.00	$800.00	$800.00
Research Fee	$7,500.00	$7,500.00	$7,500.00
Project Management	$2,500.00	$2,500.00	$2,500.00
Misc./Travel Expenses	$450.00	$450.00	$450.00
Market Research Survey Total	$27,275.00	$28,550.00	$29,750.00



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1575 Old Bayshore Highway
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Burlingame, CA 94010

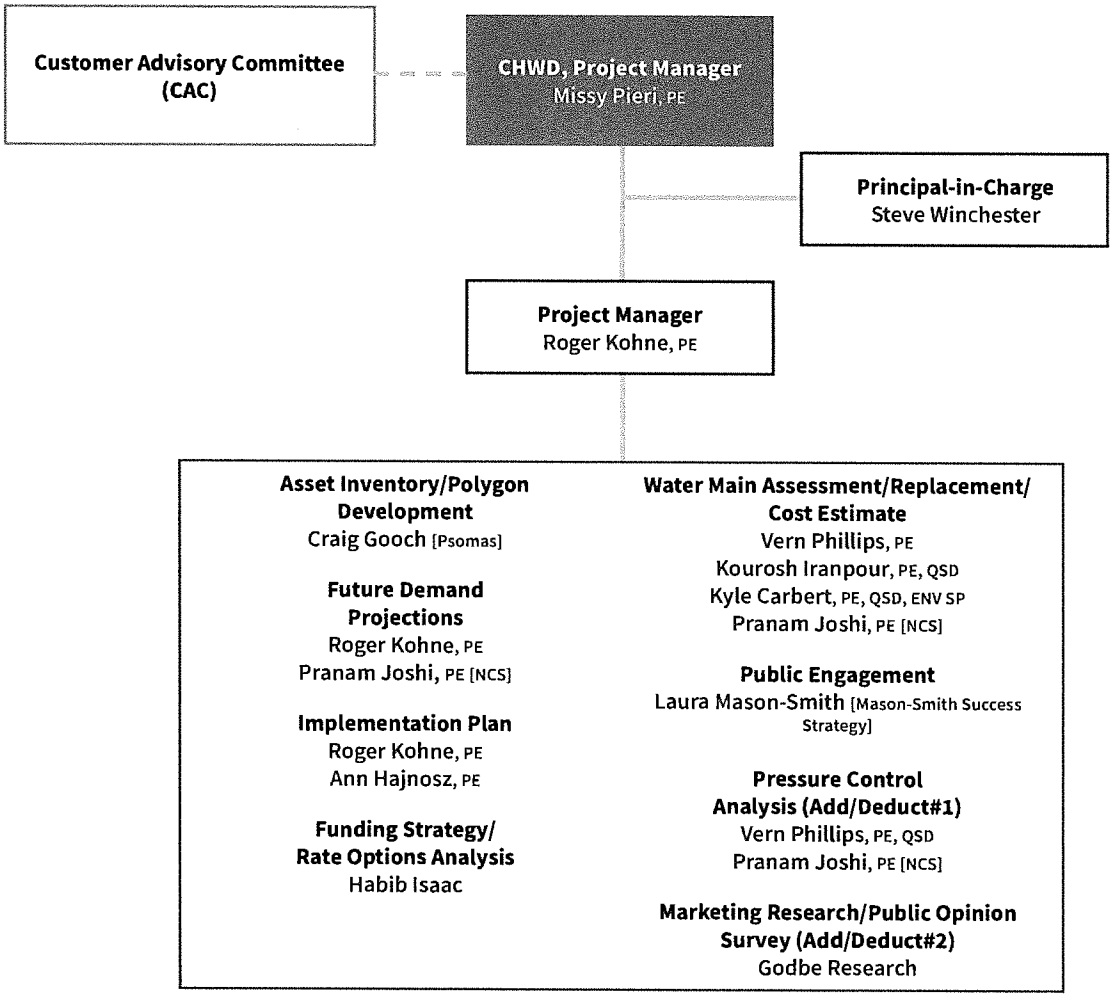
Southwest/Reno Office
59 Damonte Ranch Parkway
Suite B-309
Reno, NV 89521

Seattle Office/Northwest
601 108th Avenue NE
Suite 1900
Bellevue, WA 98004

Background and Experience

Background and Experience

Org Chart



Background and Experience

1. Consulting Team

Harris & Associates, Inc 1110 W Capitol Avenue West Sacramento, CA 95691	**Psomas** 1075 Creekside Ridge Drive, Suite 200 Roseville, CA 95678	**Narasimhan Consulting Services, Inc (dba NCS Engineers)** 202 E. Earll Drive (suite 110) Phoenix, AZ 85012	**Mason-Smith Success Strategies** 2016 French Camp Circle, Suite B Gold River, CA 95670

2. Background/History

HARRIS & ASSOCIATES

Years in Practice: 43 years

Integrating engineering and public finance expertise that helps our clients find the ideal solution to their infrastructure challenges has been a hallmark of our business since our founding in 1974. Our team members include the industry's premier thought leaders who have devoted their careers to helping communities plan, fund, design and build infrastructure to deliver critical utility services. With so many competing interests for limited resources, sound decision-making for utility leaders is critical as you seek to balance short-term pressures of rising costs with long-term responsibilities of the stewardship of finite nature resources. Harris' team of licensed engineers, environmental planners, finance and rate-making experts and construction managers cover all aspects and angles of infrastructure challenges, providing sound technical advice, that enables you and your decision makers to make the best choices for your communities, now and into the future.

In one firm, you get industry-leading engineering, construction management and public finance services - that's a rare find.

Infrastructure and Financial Planning Expertise. Our infrastructure services reflect today's environmental goals – Clean and Green – due to dwindling water supplies and more stringent environmental regulations. We staff our team with experienced professionals credentialed in the latest sustainable engineering and construction techniques to keep your projects in compliance with and in some cases, ahead of, industry trends. For example, our clients and their constituents both benefit from our expertise in trenchless technology which enables the rehabilitation of water and sewer lines without digging up streets and sidewalks. Some of our proudest infrastructure contributions include sustainable water initiatives such as the largest desalinization project in the U.S., located in Carlsbad, California.

From planning to permitting, design and construction, our team is always looking ahead to make sure your projects are successful not only from a scope, schedule and budget standpoint, but from the standpoint of your ratepayers, decision makers and interested stakeholders.

Harris' team includes engineers with significant financial planning and rate-making experience, coupled with seasoned business analysts who have supported numerous cities with their rate administration processes. What differentiates Harris is our proven ability to integrate business and financial acumen with engineering expertise to

drive success for our clients and their stakeholders. For financial planning and rate studies, this means we have a more in-depth understanding of key utility operating, engineering and capital assumptions, enabling us to better validate these assumptions which are the foundation for building long-term financial projections.

Harris Project Experience

MULTIPLE WATER PLANNING AND CONSTRUCTION PROJECTS
City of Folsom

As a Senior Civil Engineer and Project Manager for the City of Folsom, Roger managed multiple projects that have relevance to the District's 2030 project. Roger knows what it's like to lead key planning efforts and manage consultants on behalf of city agencies. He has also worked for private engineering firms, helping city agencies with solutions to technical challenges. He has literally sat on "both sides of the table". Some of his relevant experience from working at the City of Folsom includes:

- **Urban Water Management Plan (UWMP) and Water Master Plan (WMP).** This experience gives him unique insights from the utility's perspective and skills that will benefit the District. Challenges on this project involved developing water demand projections with limited customer water meter data (the City had only recently completed its meter installation program), with much of the data representing extreme drought conditions and subsequent mandatory conservation measures. Roger's understanding of regional water demand usage and conservation, particularly of those who rely on Folsom Lake, will be of benefit in establishing solid demand projections for the District. This project also involved developing a CIP for future critical infrastructure projects. Through this work, Roger understands the importance of interpreting hydraulic modeling data to develop a prioritized list of improvements that provide the greatest value to the District.
- **Fire Hydrant Flow Test Model Simulation work.** This related project for Folsom involved hydraulic model simulations of fire hydrant flow testing in lieu of field testing due to drought declaration and water restrictions. Modeling was used to confirm level of service and verify pressure and flow requirements for new development. Roger developed a systematic program to calibrate the model output with historical field test data, resulting in accurate and defensible assessments of future service conditions. This experience will benefit the District by ensuring that the data from hydraulic modeling simulations is accurately used to development water main assessments and prioritized CIP.
- **Crestridge Water Main Replacement, City of Folsom.** This project involved replacement of 1,200 feet of old AC water main experiencing an increasing breakage rate, particularly service connections, with an 8-inch PVC water main, service switchover to 42 residents in a private subdivision, and installation of new water meters in an older housing development. Reviewed historical development plans to help in design. Challenges included limited subdivision plans. Roger oversaw the entire construction phase of the project and understands the importance of using available records for planning and design.
- **Various Other Water and Sewer Replacement and Upgrade Projects.** Roger managed several projects for the City of Folsom. Examples include involved construction new water mains, individual meters, and service switchover to residents in an older private subdivision on the north side of the City's service area, and a residential sewer lateral inspection and repair program involved over 20,000 sewer service lateral connections. These projects involved using the City's GIS system to obtain historical pipe records, as well as older printed development plans that were not in the City's GIS database. This experience will benefit the District in that he understands the various formats and information associated with historical records, and the importance of accurate transferring of these records and data to GIS for future use, including the 2030 project.

RELEVANCE TO PROJECT

- Planning
- Water demand forecasting
- Hydraulic modeling
- Integration of CIP with GIS
- Understanding of regional water issues.

SANITARY SEWER PIPELINE REHABILITATION PROGRAM
City of Piedmont

The City was given a cease and desist order by the Regional Water Quality Control Board (RWQCB) to make improvements to their outdated sewer system by rehabilitating the designated sub-basins or suffer heavy fines. In response, the City developed an aggressive $16 million, multi-year sewer improvement program. Harris applied for and received a $16 million SRF loan to address CDO projects.

Harris' tasks included the management and evaluation of sewer survey videos; pipe segment prioritization, evaluation, and determination of best rehabilitation methods; and PS&E documents for construction. By using trenchless technology in favor of open cut construction, Harris shaved six years off the initial schedule and used only $9 million of the authorized budget.

In addition, Harris' designers and construction managers provided extensive public outreach to the residents, including through meetings with residents directly affected by the project and posting articles in the local newspaper.

Harris was responsible for all administrative work associated with the project including coordinating with the Regional Board, State Water Resources Control Board design staff, subconsultants and public relations.

Achievement(s):

Harris helped the City secure $16 million in SRF funding for their sewer collection system and after three construction phases we met the goals of the program and only used $9 million of the original budget and completed the program 6 years ahead of the CDO deadline.

•Using trenchless technology in favor of open cut construction allowed Harris to complete the program 6 years ahead of schedule for the last phase (non-CDO project), Harris was also able to qualify Piedmont for the ARRA portion of the funding, which resulted in a 1% interest rate for the life of the loan.

RELEVANCE TO PROJECT

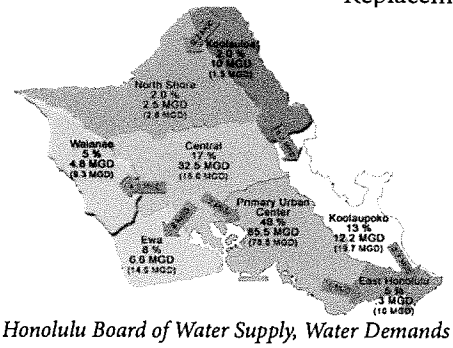
- Pipe inspection and condition assessment
- Replacement prioritization
- Rehabilitated 200,000 feet of pipelines
- Public outreach in sensitive neighborhoods

PEER REVIEW OF FINANCIAL PLAN, COST OF SERVICE STUDY, AND RATE DEVELOPMENT
Honolulu Board of Water Supply

The Honolulu Board of Water Supply (BWS) is in the middle of an important master planning effort that will set the course for water system improvements for the next 30 years. The critical component of this effort will be the development of a financial plan and rate study. Over the next 22 months, Harris is providing senior level technical review of the BWS's rate consultant's work product including a review of the revenue requirements, cost of service and rate design analyses and development of financial policies. Harris' Project Manager, Ann Hajnosz, will be assisting Board staff in the preparation for and attendance at Stakeholder Advisory Group (SAG) meetings and other public meetings, including Board and City Council meetings. A key role for Harris is providing added assurance to BWS staff that the goals of the financial planning and rate development process will be consistent with the master planning effort and the overall goals of the BWS. Our team's experience with all of the county water agencies in the state provides unique insights into the concerns of ratepayers and other stakeholders - a key component on this project. In addition, the desired impact of this project will be the development of rate-making expertise in BWS staff. Harris' expertise will provide the highest value to BWS staff, arming them with the right questions at the right time during this important financial planning and ratemaking effort.

RELEVANCE TO PROJECT

- Water Master Plan, Funding and Rate Study
- Close collaboration with utility staff on Funding Analysis and Rate Study
- Significant involvment with Stakeholder Advisory Group (SAG)
- More than half of the CIP is focused on Main Replacement



Honolulu Board of Water Supply, Water Demands

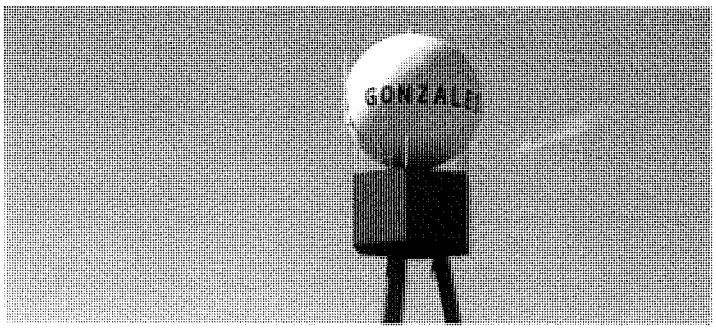
HYDRAULIC MODELING AND CIP DEVELOPMENT, WATER AND SEWER RATE STUDY

City of Gonzales

Harris is providing comprehensive planning and design support on multiple projects for the City of Gonzales, located approximately 15 miles south of Salinas. The City's demographic is primarily blue collar, agriculturally based industry that is currently experiencing both commercial and residential growth. Harris is working closely with the City to prioritize capital improvements in way that is both financially sustainable and socially consistent with residents' needs and values. Roger, in conjunction with NCS Engineers, is currently assisting the City in assessing its water distribution system and ability to meet future demands. This work includes demand forecasting, hydraulic modeling to evaluate and verify current level of service and deficiencies, design parameters and impacts for constructing a new well, and other system improvements. Roger will also be leading an upcoming water master planning effort that will develop a Capital Improvement Plan. Roger is also performing similar planning support for the City's sewer collection and treatment systems. Ann is currently leading a rate study to update the City's water and sewer rates. She is overseeing the development of a revenue requirements model, cost of service analysis and rate design efforts. Key challenges include addressing how the City will pay for significant future capital expenditures. The study will include efforts to comply with Proposition 218 and City Council presentations.

RELEVANCE TO PROJECT

- Water Master Planning
- Residential and Commercial Demand Forecasting
- System assessment and CIP Development
- Hydraulic Modeling
- Rate Studies



PSOMAS

Years in Practice: 71 Years

Dedicated to balancing the natural and built environment, Psomas provides sustainably engineered solutions to public and private clients worldwide. As a full-service consulting firm, they help create value and deliver complex projects.

Markets served include transportation, water, site development and energy with the following services offered:

- GIS consulting
- Water and wastewater engineering
- Civil engineering
- Land surveying including 3D laser scanning
- Site development engineering
- Transportation and traffic engineering
- Structural engineering
- Environmental planning and resource management
- Land planning and urban design
- Land use entitlements
- Construction management
- Special district financing

Sustainable practices are incorporated into all of their services. From designing ISI (Institute for Sustainable Infrastructure) certified projects such as removing pollutants from urban stormwater runoff to site design for LEEDTM-certified projects and our renewable energy practice, Psomas is in the forefront of the sustainable design movement.

They have multi-disciplined teams of experts—top-notch staff who produce award-winning projects. Founded in 1946, Psomas provides services from offices throughout California, Arizona, and Utah.

Infrastructure and Financial Planning Expertise.

Psomas has extensive experience with infrastructure management supporting their clients through various phases of infrastructure management lifecycle. Psomas engineering teams support utilities with master planning to assess long term needs, conduct assessment of existing infrastructure condition and capacity, and develop master plans including specific capital planning. Their special districts financing team creates long term capital improvement programs. Their spatial technology solutions team develops asset

based GIS databases to serve as an asset management framework by representing the asset inventory that connects with CMMS (Cityworks), CIP, condition assessment data, scanned documents, financial systems, and customer information. Together this experience and the information solutions provide broad capabilities for implementing a sustainable asset management program for utilities.

Psomas Project Experience

GIS BASED RECORD MAP POLYGON MAPPING
Alameda County Surveyor

Psomas defined the project and performed polygon boundary mapping, performed quality control, demonstrated alternative map access methods, document mapping procedures, and produced a project plan and costs for mapping all record maps for the entire geography of the County.

This project was a pilot project to define specifications based on 50 maps. Psomas developed a methodology to create GIS polygons of Record Maps (subdivisions, record of survey, parcel maps) to enable rapid access to the maps through GIS. Psomas obtained scanned maps from the Surveyor and **used offshore team members** to map GIS polygons and capture key attribute data. Psomas demonstrated alternative technologies (Cloud GIS, desktop, and an existing GIS Viewer) as alternatives for accessing and sharing the record documents. Psomas also is providing recommendations for mapping all records including record documents in the incorporated cities.

RELEVANCE TO PROJECT

- GIS Polygon Development
- Record Scanning and Mapping
- Documents Mapping Procedures

STORM DRAIN SYSTEM ASSET INVENTORY COMPLETION AND DATA VERIFICATION
Alameda County Flood Control District

GIS based asset inventory was a key foundational step as part of an enterprise asset management strategy for managing the storm drain infrastructure. Psomas recommended and enterprise GIS strategy for managing the storm drain infrastructure that relies on GIS as the inventory of assets that will support hydraulic and hydrologic modeling, infrastructure maintenance management, and capital planning.

For this project, Psomas developed the data enhancement methodology and provided staffing to update GIS attributes, realign GIS stormwater features, and perform field inventory of stormwater assets.

The stormwater geodatabase had a significant number of data inconsistencies (missing asssets, unverified and missing attributes, inconsistent spatial representation) that limited the reliability of information analysis for H&H modeling and infrastructure master planning. Psomas established a multi phased process to establish an enhanced stormwater geodatabase to support diverse enterprise business needs of the district.

- Database design – Refined the geodatabase design to include unique asset ID, source data references for content and spatial accuracy (feature metadata), separation of the physical asset design from the logical H&H attribution.
- Implemented Editing Tools – Configured ArcGIS Desktop tools to simplify and speed data entry and topology management.
- Systematic as-built data review – Reviewed as-built drawings to extract and verify missing or logically inconsistent attributes including inverts, material size, date installed, and project ID. Linked scanned drawings with assets.
- Spatial repositioning – Verified or repositioned assets using 3" aerial orthoimagery, verified topology and flow directions.
- Field Verification – Where assets were missing or the data was logically inconsistent, Psomas physically inspected manholes to document the depth, invert, configuration, and pipe diameter using GPS and field data collection processes.
- QC review – Ongoing and systematic review of data to verify logical data integrity, find data gaps, and confirm compliance with geodatabase specifications.

The result of this work has been a significant reduction

in data cleanup and enhancement during the H&H modeling efforts. The data is now being used for GIS based asset management with direct GIS mobile application access by the field workforce.

RELEVANCE TO PROJECT

- Asset Inventory
- Project Polygon (Linked as-built)
- Water Main Assessment (Stormwater Manhole Assessment)
- GIS Data Editing Tools and QC Process
- Geodatabase Design Tracking Data Confidence
- Spatial and Topological Data Verification

WATER GEODATABASE MAPPING
City of Martinez

Psomas was the prime contractor responsible for the water system development and project management services including geodatabase design, GPS asset inventory, conversion management, data QC, map book preparation, and installation of the GIS data within the City's GIS system.

Psomas developed a GIS based asset inventory and mapping database as a foundation for asset management and engineering modeling. Services included geodatabase design, as-built document collection and scanning, GPS asset location (valves and hydrants), GIS geodatabase development, quality control, map book printing, data updating, and linking of as-bult drawings. Psomas facilitated publishing of the resulting water geodatabase into the GovClarity GIS system.

RELEVANCE TO PROJECT

- Asset Inventory
- Document Scanning



NCS

Years in Practice: 20 Years

NCS is Harris' strategic partner to provide specialized serves related to hydraulic modeling, GIS, and asset management in the state of California.

Narasimhan Consulting Services, Inc., DBA NCS Engineers, was established in 1998 in Phoenix, Arizona and provides value-added, technically sound and cost-effective solutions to our clients in the areas of water and wastewater hydraulic modeling; SCADA and GIS applications; planning and design of treatment systems; storage and distribution facilities; research and regulatory compliance projects; water quality; and construction management for water/ wastewater projects. NCS is a small business enterprise and minority business enterprise.

NCS Project Experience

WATER SYSTEM INFRASTRUCTURE ASSET MANAGEMENT PLAN
City of Flagstaff

NCS/NJB was selected to prepare water facility master plans and condition assessments for the entire City of Flagstaff Water System, including 25 wells, 7 PRV stations, nine reservoirs/tanks, 5 pump stations, the Lake Mary WTP and the inner Basin WTP. They performed a comprehensive evaluation of every piece of equipment in these facilities to confirm long term reliability and compliance with all Safe Drinking Water regulations; and developed a 20-year CIP for rehabilitation. Equipment and facilities that were evaluated included pumps, mixers, chemical feed systems, clarifiers, basins, drive equipment, electrical switchgear, steel and concrete structural elements; and all instruments and analyzers. NCS developed detailed cost estimates of the required improvements.

SAMSAssetManagement software was set up and implemented for the City. The information, documents and data specific to each piece of equipment and asset for the water treatment plant are stored in SAMS. The software tracks the condition of all assets and schedules, proposed upgrades, and updates the condition rankings in the future automatically as staff update and store more information related to assets.

RELEVANCE TO PROJECT

- Asset Management
- Condition Assessment

WATER MODELING PROGRAM
City of Phoenix

NCS has performed several water/wastewater modeling tasks for the City of Phoenix over the past several years as summarized below:

Lake Pleasant Water Treatment Plant (WTP) Delivery Hydraulic Optimization Model. NCS conducted an investigation to identify an operational strategy for the Lake Pleasant WTP and Union Hills WTP to optimize the water quality and costs.

Groundwater Management Plan Hydraulic Modeling. NCS performed a hydraulic analysis to determine shortage of supply and supply restriction information for emergency conditions.

Water and Cost Optimization. NCS updated the water model to reflect future conditions (year 2021) and identify strategies for moving water within the City. The essential target of this project was to develop an operating strategy that would allow compliance with water quality regulations as well as provide the most cost effective run. NCS developed a GA-based tool to evaluate numerous options to identify the operating strategy that reduced the water age and provided the most cost-effective option.

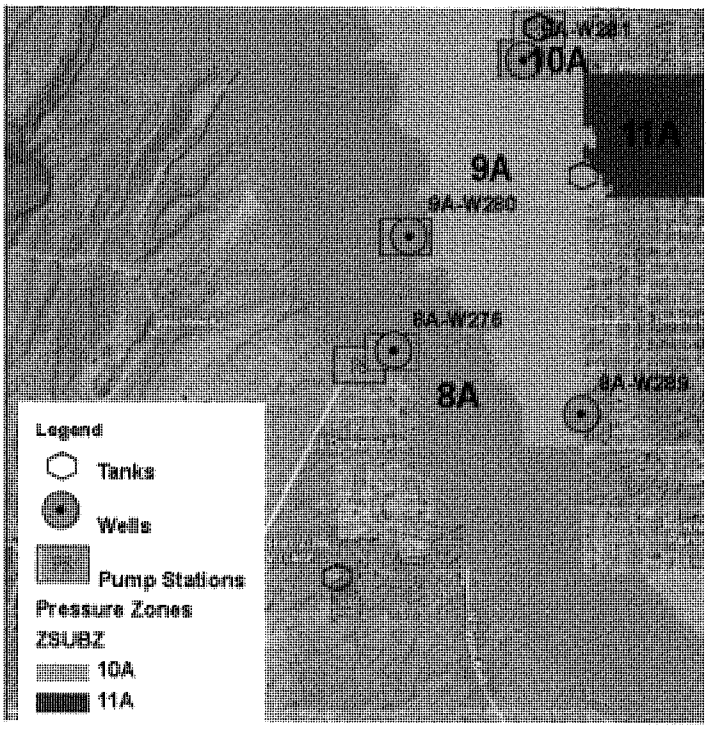
GIS Synchronization and Map Development. NCS provided a hydraulic modeling solution for the water and sewer systems that was in sync with the GIS systems.

Zone 1/1A Split Analysis. NCS provided field data collection services and performed a hydraulic analysis of an existing pressure zone to optimize zone boundaries to divide this zone into two pressure zones divided by pressure reducing valves (PRVs) and a new pump station. The purpose was to increase the hydraulic grade line for new commercial customers.

Water and Wastewater Model Training. Through this project, NCS provided a 5-day training course to the City of Phoenix staff which included training the staff on Bentley institute certified training course of Water Distribution Modeling. The training included comprehensive training for 12 attendees. It also included model development, model maintenance, demand allocation, calibration, design and optimization, skeletonization, criticality analysis and water quality modeling.

RELEVANCE TO PROJECT

- Hydraulic Modeling and Training
- Pressure Zone Analysis and Optimization
- GIS Mapping



HYDRAULIC MODELING SERVICES
Otay Water District

NCS provided hydraulic modeling services to support the District's CIP projects, developer funded studies, and studies requested by the Operations division. Following tasks were performed under this contract Included:

- Fire Flow Modeling.
- North-South Pump Station modeling using various scenarios to identify the system-wide hydraulic impacts, pump operation conditions, and hydraulic grade resulting from installation of an interconnecting pump station and pipeline between the North and South districts.
- Fire flow study to develop short term and long term solutions for water pressure concerns.
- GIS synchronization and update to the potable water system.

- Hydraulic analysis for the installation of two new pressure reducing stations to the 458 zone and 485 zone from the 624, and NCS provided settings and maximum and minimum flow rates needed for the design of the pressure reducing stations.

RELEVANCE TO PROJECT

- Hydraulic Modeling and Training
- Distribution System Pressure Analysis
- GIS Mapping

MASON-SMITH SUCCESS STRATEGIES

Years in Practice: 28 Years

Based in California's Capitol region for over 25 years, Mason-Smith Success Strategies partners with clients who operate in a wide array of industries locally, nationally, and internationally – public agencies, community organizations, both large and small businesses, and professional associations. In partnership with professional firms who are providing public agencies with engineering, infrastructure and financial planning expertise for public projects, Mason-Smith Success Strategies has provided expertise in public engagement, stakeholder outreach, strategic planning, partnering, and team development to support these projects. Mason-Smith's services have included designing and facilitating public engagement plans and stakeholder advisory input processes for public projects related to water and power utility services; stormwater quality management; municipal planning and community development programs; new highway installations; public transit system; regional transportation plans; municipal parking programs; public safety programs; technology enhancements and program adjustments; organizational restructuring; public housing development and administration; and public agency strategic planning processes.

Mason-Smith Success Strategies Project Experience

ANNUAL STRATEGIC PLANNING PROCESSES, 2016-17 AND 2017-18

Citrus Heights Water District

Responsibilities include designing and facilitating a strategic planning processes for both 2016-17 and 2017-18. Laura works closely with Staff Leadership and Board Members to (1) Clarify desired outcomes for the processes through individual interviews of Board Members and key managers; (2) Design the Strategic Planning Processes; (3) Facilitate the public Strategic Planning Sessions to secure a comfortable and productive environment for all the participants to:

- Build shared understanding and share diverse views
- Strengthen working relationships and collaboration
- Assess the external environment within the District operates
- Develop long-range District goals
- Prioritize one-year objectives to achieve the long-range goals
- Develop a process to monitor results quarterly and make adjustments as appropriate

The creation of mutually agreed-upon Long-Range Goals and Key Annual Objectives to accomplish the Goals which then provide a roadmap for the District for the coming year.

RELEVANCE TO PROJECT

- Asset Inventory
- Funding Strategy
- Implementation Plan
- Public Egagement/ Stakeholder Outreach/ Customer Advisory
- Rate Option Analysis

DEVELOPMENT SERVICES DEPARTMENT ORGANIZATIONAL RESTRUCTURING AND CHANGE MANAGEMENT TO IMPROVE EFFECTIVENESS AND CUSTOMER SERVICE

City of Sacramento

For a newly reorganized City Department of over 600 employees, **Mason-Smith Success Strategies**, supported leadership and team member development, and designed/facilitated organizational processes, internal strategy sessions, and numerous public meetings to achieve the desired outcomes. The two-year public engagement portion of this project involved numerous external stakeholders through public meetings; focus group sessions; an ongoing citizens' advisory committee called the Development Oversight Commission; and direct participation to gather ongoing community perceptions and input designed to make improvements to internal processes. After project completion, the development community and the local business media recognized

the Development Services Department as the most effective development services department in the region, and the Department's process received recognition as a national model.

RELEVANCE TO PROJECT

- Asset Inventory
- Funding Strategy
- Implementation Plan
- Public Egagement/ Stakeholder Outreach/ Customer Advisory
- Rate Option Analysis

PUBLIC ENGAGEMENT PROCESS TO GATHER PUBLIC INPUT AS PART OF UPDATING THE CITY OF SACRAMENTO'S AFFORDABLE HOUSING ORDINANCE

Sacramento Housing and Redevelopment Agency (SHRA)

Responsibilities included design strategies of a six-month, five-public-meeting process with of a diverse 12-member Stakeholder Advisory Committee. The process included ducating and gathering public input to:

- Create a factual understanding of the Inclusionary Housing Ordinance and the factors related to its implementation
- Solicit balanced public input and suggestions on staff recommended changes to the Inclusionary Housing Ordinance
- Achieve mutual education and understanding of different perspectives to be considered in creating the updated Ordinance

As a result of this six-month process, updating the Ordinance was accomplished in a more comprehensive and expeditious manner than had been anticipated.

RELEVANCE TO PROJECT

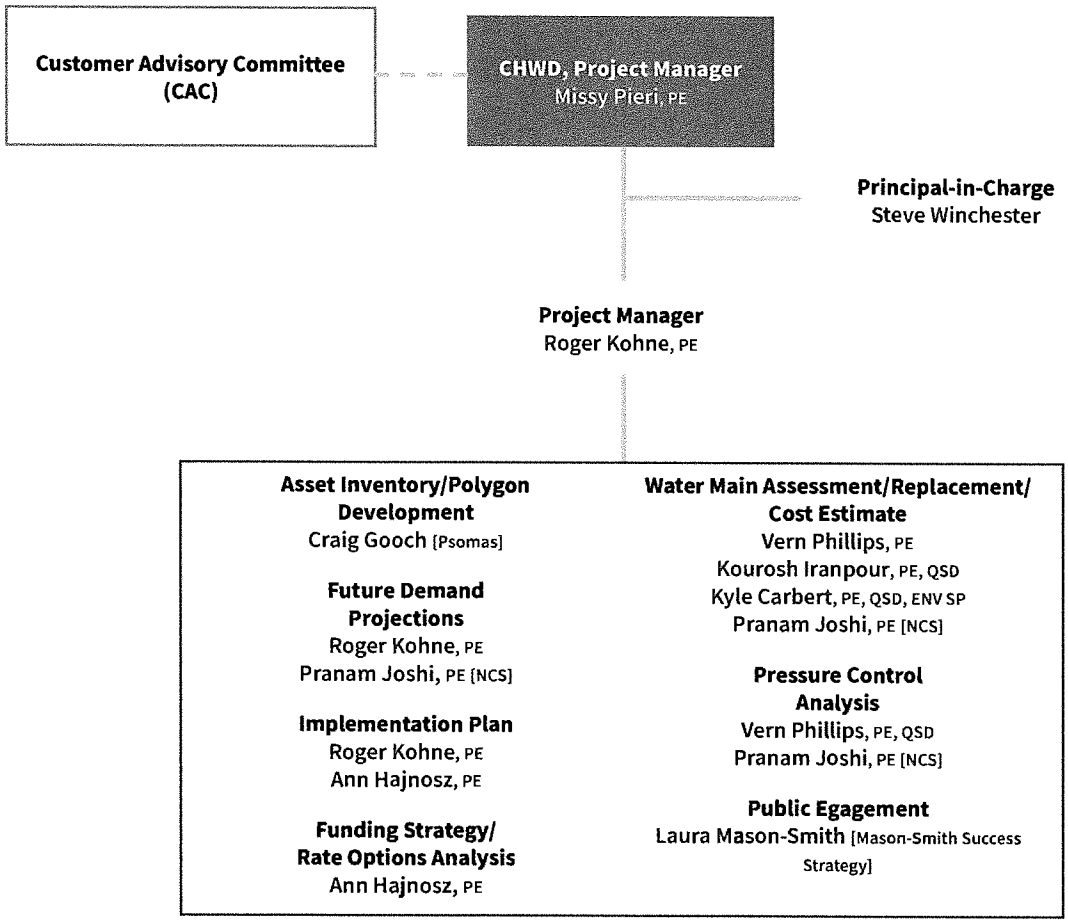
- Asset Inventory
- Funding Strategy
- Implementation Plan
- Public Engagement/ Stakeholder Outreach/ Customer Advisory
- Rate Option Analysis

3. Office Locations

Harris & Associates	Psomas	Narasimhan Consulting Services, Inc (dba NCS Engineers)	Mason-Smith Success Strategies
Harris & Associates, Inc 1110 W Capitol Avenue West Sacramento, CA 95691	**Psomas** 1075 Creekside Ridge Drive, Suite 200 Roseville, CA 95678	**Narasimhan Consulting Services, Inc (dba NCS Engineers)** 202 E. Earll Drive (suite 110) Phoenix, AZ 85012	**Mason-Smith Success Strategies** 2016 French Camp Circle, Suite B Gold River, CA 95670

4. Organization Chart

The organization of our team is comprised of trusted advisors to the District and seasoned experts who will bring the right balance of familiarity with the District and new ideas to be considered in Project 2030. In addition, our team is comprised of professionals who have worked together on one or more projects over their careers so they are familiar with individual communication and work styles, ensuring a cohesive project team built to bring value to the District. The organization charge depicts our team's organizational structure.



The chart below provides our understanding of how we will interact with District staff identified in the RFP. We know from working on similar projects that consistent communication between the project team and District staff is critical; and we know that we can't have only one or two points of contact – that would result in communication bottlenecks on the project. Therefore, an experienced and cohesive team is critical to ensuring communication is consistent, accurate, timely and most of all efficient. Our experienced professionals can be trusted to maintain fluid and accurate channels of communication throughout the project.

Team Member	Project 2030 Study Role	Anticipated Primary District Staff Contact
Steve Winchester, Executive VP	Principal-in-Charge	• Missy Pieri, District Engineer • Hilary Straus, General Manager
Roger Kohne, PE, Senior Director	Project Manager and Implementation Plan Lead	• Missy Pieri, District Engineer • Hilary Straus, General Manager • Paul Dietrich, Engineering Department Manager
Craig Gooch, Vice President	Asset Inventory/Project Polygon Development Lead	• Tamar Dawson, Assistant Engineer • Borey Swing, Engineering/GIS Technician
Vern Phillips, PE, QSD, Senior Director	Water Main Assessment/Replacement Phasing Lead	• Paul Dietrich, Engineering Department Manager
Kouroush Iranpour, PE, Director	Water Main Assessment/Replacement Phasing Support	• Paul Dietrich, Engineering Department Manager
Kyle Carbert, PE, QSD, ENV SP, Senior Engineer	Project Cost Estimator	• Paul Dietrich, Engineering Department Manager • David Gordon, Operations Manager • Rex Meurer, Water Efficiency Supervisor
Pranam Joshi, PE, Vice President	Future Water Demands Lead, Hydraulic Modeling, and Pressure Control Analysis	• Paul Dietrich, Engineering Department Manager • David Gordon, Operations Manager • Rex Meurer, Water Efficiency Supervisor
Ann Hajnosz, PE, Senior Director	Funding Strategy/Rate Options Lead and Implementation Plan Support	• Susan Sohal, Accounting Supervisor/Treasurer
Laura Mason-Smith, Principal	Public Engagement/Stakeholder Outreach/CAC/Presentations	• Missy Pieri, District Engineer • Management Services Supervisor (tbd)

5. Qualifications of Team

The following table is a summary of each team member's education, professional qualifications and work experience. Additional details can be found in full resumes located in the Additional Information Section of our proposal.

Name, Title	Project 2030 Study Role	Education/ Professional Qualifications	Work Experience
Steve Winchester, Executive VP	Principal-in-Charge	BS, Business Administration; MBA, Business Administration	30 years water industry experience; oversight of Water Master Plans for the cities of Hunington Beach and Modesto; ovesight of over 20 Urban Water Management Plans in CA
Roger Kohne, PE, Senior Director	Project Manager and Implementation Plan Lead	BS, Civil Engineering; MS Environmental Engineering; PE (CA)	25 years water industry experience; Project Mgr for Folsom Urban Water Management Plan, Water Master Plan and Crestridge Water Main Replacement
Craig Gooch, Vice President	Asset Inventory/ Project Polygon Development Lead	BS, Geography	38 years of experience leading public works infrastructure GIS projects; Project Mgr for Citrus Heights Enterprise GIS Design and Implementation and Alameda County Asset Data Standardization & GIS Integration with MaintStar and CIP Implementation
Vern Phillips, PE, QSD, Senior Director	Water Main Assessment/ Replacement Phasing Lead	BS, Civil Engineering, PE (CA)	35 years water industry experience; Project Mgr for numerous pipeline rehabiliation projects involving planning, condition assessment, alternatives analysis, design and construction mgt; nationally-recognized expert in trenchless technologies, including leading the Piedmont Pipeline Rehabilitation Program
Kouroush Iranpour, PE Director	Water Main Assessment/ Replacement Phasing Support	BS, Civil Engineering; MS, Civil Engineering, PE (CA)	28 years water industry experience; Project Mgr for numerous pipeline rehabiliation projects involving planning, condition assessment, alternatives analysis, design and construction mgt, including senior supporting role on the Piedmont Pipeline Rehabilitation Program
Kyle Carbert, PE, QSD, ENV SP Senior Engineer	Project Cost Estimator	BS, Civil Engineering; MS, Civil Engineering, PE (CA)	10 years of water industry experience; has provided accurate cost estimating results for pipeline rehabilitation projects in Northern CA, including pipeline rehabiliation project for San Mateo County
Pranam Joshi, PE, Vice President	Future Water Demands Lead, Hydraulic Modeling, and Pressure Control Analysis	BE, Chemical Engineering also; MS, Environmental Engineering, PE (AZ)	16 years water industry experience specializing in water system modeling and asset management. Familiar with numerous hydraulic software; GIS applications with asset management, including work with the Flagstaff, AZ.
Ann Hajnosz, PE, Senior Director	Funding Strategy/ Rate Options Lead and Implementation Plan Support	BS, Civil Engineering; MBA, Finance, PE (WA)	30 years water industry experience focused on financial planning and utility rate; experience working with utility stakeholders including Boards, City Councils and customer groups in support of Water Master Planning efforts including Honolulu BWS, Kauai DOW and Hawaii DWS.
Laura Mason-Smith, Principal	Public Engagement/ Stakeholder Outreach/CAC/ Presentations	BS, Business Administration	28 years public engagement consultant to public agencies, private businesses and professional associations, including Strategic Planning work with CHWD.

6. References

HARRIS

City of Folsom
Marcus Yasutake
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916.351.3528

City of Piedmont
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Department of Public Works (Retired)
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Waterworks Controller
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City of Gonzales
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Public Works Director
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PSOMAS

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Alameda County Surveyor
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City Engineer
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NCS

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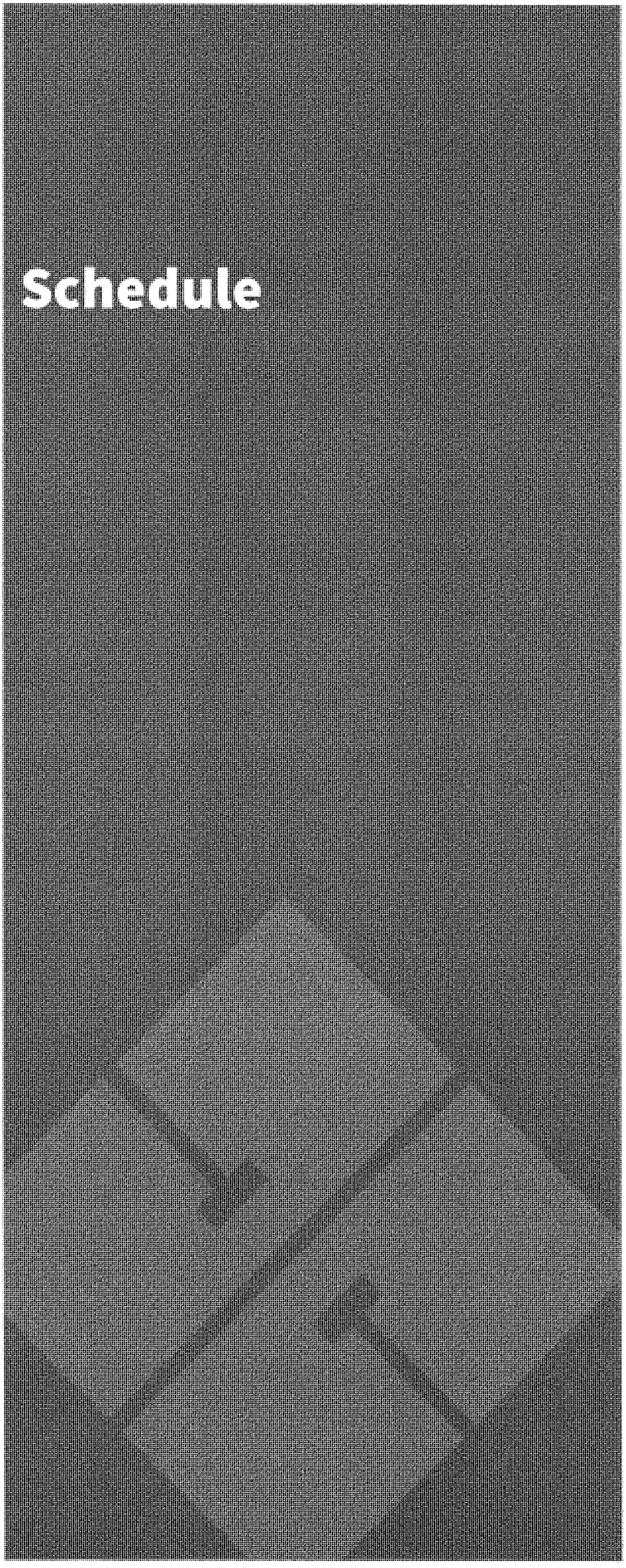
MASON-SMITH SUCCESS STRATEGIES

Citrus Heights Water District
Hilary Straus
General Manager
hstraus@chwd.org
916.735.7715

City of Sacramento
Ryan DeVore
Community Development Department Director
RDeVore@cityofsacramento.org
916.808.8860

Sacramento Housing and Redevelopment Agency
Emily Halcon
Formerly the SHRA Program Manager, now the Homeless Services Coordinator
EHalcon@cityofsacramento.org
916.808.7896

Schedule



Schedule

We have prepared the attached project schedule which represents our understanding and vision for how to efficiently complete the project. We show the critical path for completing the project on-time being controlled by two main elements:

1. The Asset Inventory and Polygon Development work (Task 1) will begin immediately after all project records have been scanned.
2. The Water Main Assessment and associated tasks (3-7) after Task 1 has been completed.

The Water Demand Projection work (Task 2) is not on the critical path, and therefore we envision starting this task a month or so after kickoff and after Task 1 is well underway. We also would begin our review of other District documents, past studies, and leak data, as well as get set-up and familiar with the District's hydraulic model (preliminary elements of Task 3) during the initial few months of the project.

Once all of the asset data have been entered into GIS, we will further evaluate historical leak data and perform the consequence of failure analysis to get a picture of the overall magnitude of main replacement. We will then perform an evaluation of options for phasing the main replacement, including the detailed cost estimating work (Task 4) and the rate analysis work (Task 6). From those options, a preferred option will be selected and a Phasing Plan will be developed (Task 5). From this work, a Field Inspection Plan (part of Task 3) can be developed that is tailored to the preferred option. Finally, these results will all be incorporated into a project Implementation Plan (Task 7).

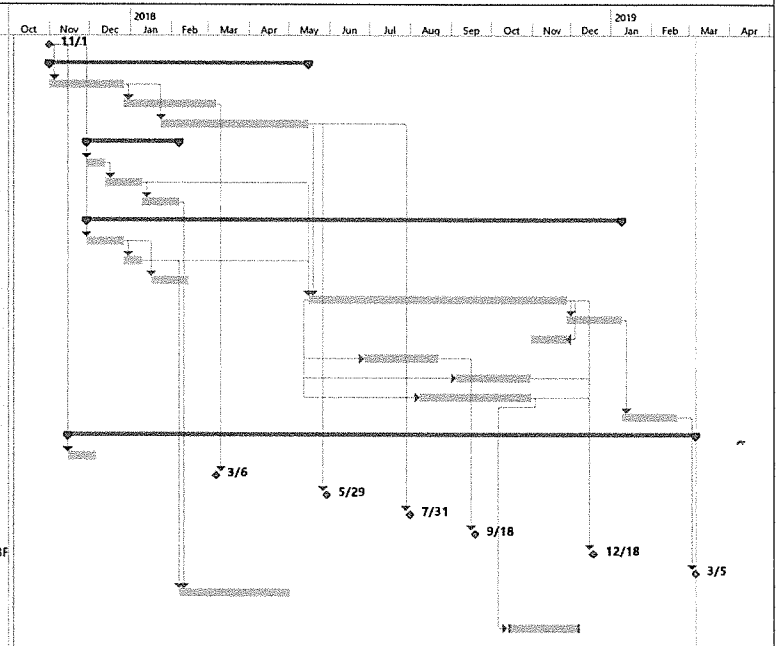
Our approach to Public Engagement (Task 8) was described under the Report Tasks section of our proposal. This schedule shows when we envision the six CAC meetings/workshops would take place in relation to the project tasks. There is, of course, sufficient flexibility in this schedule to schedule these workshops around other District activities.

The Add/Deduct Item #1 System-Wide Pressure Control Analysis work can also be done at various times during this project. We envision it being started after we have had a chance to review the District's hydraulic model.

The Add/Deduct Item #2 - Marketing Research/Public Opinion survey work would begin upon completion of Task 6 (Funding Strategy) and would be based on the final two funding options.

Citrus Heights Water District
Project 2030 Water Main Replacement Study
Project Schedule

ID	Task Name	Duration	Start	Finish	Predecessors
1	**Project Kickoff**	0 days	Wed 11/1/17	Wed 11/1/17	
2	**Task 1. Asset Inventory / Polygon Development**	140 days	Wed 11/1/17	Tue 5/15/18	
3	Document scanning (by District)	40 days	Wed 11/1/17	Tue 12/26/17	1
4	Polygon Development	50 days	Wed 12/27/17	Tue 3/6/18	3
5	Populate GIS Asset Inventory	80 days	Wed 1/24/18	Tue 5/15/18	3FS+20 days
6	**Task 2. Future Water Demand Projections**	50 days	Wed 11/29/17	Tue 2/6/18	
7	Review Existing Data	10 days	Wed 11/29/17	Tue 12/12/17	1FS+20 days
8	Demand Forecast	20 days	Wed 12/13/17	Tue 1/9/18	7
9	Prepare TM	20 days	Wed 1/10/18	Tue 2/6/18	8
10	**Task 3. Water Main Assessment**	290 days	Wed 11/29/17	Tue 1/8/19	
11	Review Past Studies and Data	20 days	Wed 11/29/17	Tue 12/26/17	1FS+20 days
12	Review Hydraulic Model	10 days	Wed 12/27/17	Tue 1/9/18	11
13	Creek Crossing Inspections	20 days	Wed 1/17/18	Tue 2/13/18	11FS+15 days
14	Main Assessment	140 days	Wed 5/16/18	Tue 11/27/18	8,12,5
15	Field Inspection Plan	30 days	Wed 11/28/18	Tue 1/8/19	14
16	Prepare TM(s) - Items 4-6	20 days	Wed 10/31/18	Tue 11/27/18	14FF
17	**Task 4. Project Cost Estimates**	40 days	Wed 6/27/18	Tue 8/21/18	14SS+30 days
18	**Task 5. Water Main Replacement Phasing Plan**	40 days	Wed 9/5/18	Tue 10/30/18	14SS+80 days
19	**Task 6. Funding Strategy / Rate Options Analysis**	60 days	Wed 8/8/18	Tue 10/30/18	14SS+60 days
20	**Task 7. Implementation Plan**	30 days	Wed 1/9/19	Tue 2/19/19	15
21	**Task 8. Public Engagement / Stakeholder Outreac**	340 days	Wed 11/15/17	Tue 3/5/19	
22	Prepare Outreach Strategy	15 days	Wed 11/15/17	Tue 12/5/17	1FS+10 days
23	Workshop 1 - Goals and Overview	0 days	Tue 3/6/18	Tue 3/6/18	4
24	Workshop 2 - Asset Inventory	0 days	Tue 5/29/18	Tue 5/29/18	5FS+10 days
25	Workshop 3 - Main Replacement Findings	0 days	Tue 7/31/18	Tue 7/31/18	5FS+55 days
26	Workshop 4 - Cost Estimates, Funding Concepts	0 days	Tue 9/18/18	Tue 9/18/18	17FS+20 days
27	Workshop 5 - Phasing and Financing Results	0 days	Tue 12/18/18	Tue 12/18/18	19FS+15 days,18F
28	Workshop 6 - Implementation Plan	0 days	Tue 3/5/19	Tue 3/5/19	20FS+10 days
29	**Add/Deduct Item #1. System-Wide Pressure Control Analysis**	60 days	Wed 2/7/18	Tue 5/1/18	12,9
30	**Add/Deduct Item #2. Marketing Research/Public Opinion Survey**	40 days	Mon 10/15/18	Fri 12/7/18	19



Project: CHWD 2030 Schedule R
Date: Thu 10/5/17

Task	Project Summary	Manual Task	Start-only	Deadline			
Split	Inactive Task	Duration-only	Finish-only	Progress			
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress			
Summary	Inactive Summary	Manual Summary	External Milestone				

Agreement

Agreement

Harris has reviewed the District's professional Service Agreement and does not anticipate any significant issues that would prevent us from executing an agreement. If selected for this project, we look forward to entering into negotiations regarding final scope, fee, and terms of the agreement.

Additional Information

Team Resumes

Roger Kohne, PE

PROJECT MANAGER



Roger Kohne has 25 years of experience in master planning, design, and construction of water and wastewater infrastructure projects, including treatment facilities, pump stations, reservoirs, and pipeline rehabilitation. His design expertise includes water treatment plants and chemical feed facilities.

Before joining Harris, Roger managed Capital Improvement Program projects to improve water and related infrastructure in Folsom, California, which was undergoing significant population and commercial growth. He was key in a major update to the City's Urban Water Management Plan (UWMP) and Water Master Plan (WMP).

Roger knows what it's like to lead key planning efforts and manage consultants on behalf of city agencies. He is skilled in client interaction and communication, Utility Board/City Council document preparation and formal presentations, community outreach, project scope development, budget and schedule tracking, staff resource planning and coordination, and quality assurance. He has also worked for private engineering firms, helping city agencies with solutions to technical challenges. He has literally sat on "both sides of the table"; with this insight, coupled with significant technical expertise and strong communication and project management skills, Roger will keep Project 2030 focused on reaching its strategic objectives and adhering to the scope, schedule and budget.

RELEVANT EXPERIENCE

- **City of Folsom,** ***Urban Water Management Plan and Water Master Plan Update.*** Project Manager. This project involved the preparation of an update to the City's UWMP and WMP. Roger managed this project and developed a hydraulic model calibration plan. Challenges involved developing water demand projections with limited customer water meter data (the City had only recently completed its meter installation program), with much of the data representing extreme drought conditions and subsequent mandatory conservation measures. A user-friendly water demand analysis tool was developed to allow staff to update projections as conditions changed.
- **City of Folsom,** ***Crestridge Water Main Replacement.*** Project Manager. This project involved replacement of 1,200 feet of old AC water main experiencing an increasing breakage rate, particularly service connections, with an 8-inch PVC water main, service switchover to 42 residents in a private subdivision, and installation of new water meters in an older housing development. Reviewed historical development plans to help in design. Challenges included limited subdivision plans. Roger oversaw the entire construction phase of the project and understands the importance of using available records for planning and design.
- **City of Folsom,** ***Fire Hydrant Flow Test Model Simulation.*** Project Manager. This project involved the hydraulic model simulation of fire hydrant flow testing in lieu of field testing due to drought declaration and water restrictions. Roger

EDUCATION

MS, Environmental Engineering

BS, Civil Engineering

LICENSES

Professional Engineer, CA

AFFILIATIONS

American Water Works Association (AWWA)

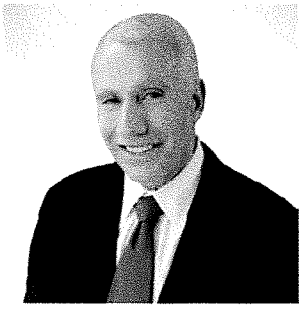
California Water Environment Association (CWEA)

developed a systematic program by which he worked with a hydraulic modeling consultant to run the City's distribution model and simulate hydrant flow tests, and then compared the results with historical field test data at nearby hydrant locations.

- **City of Gonzales,** ***Hydraulic Modeling and CIP Development, Project Manager.*** Roger is currently assisting the City in assessing its water distribution system and ability to meet future demands. This work includes developing a hydraulic model to evaluate and verify current level of service and deficiencies, design parameters and impacts for constructing a new well, and other system improvements.
- **Umpqua Basin Water Association,** ***Water System Master Plan.*** Project Engineer. Roger prepared a water system master plan for a rural district covering 100 square miles, including population and water demand forecasting, evaluation of existing facilities, hydraulic modeling and recommendations for capital improvements.
- **City of Folsom,** ***Intertie Pump Station.*** Project Manager. This project was partially funded by a Prop 84 grant from the California Department of Water Resources. Roger oversaw the design of the 2,000 gpm water booster intertie pump station. He oversaw initial hydraulic analysis and preliminary design of new pump station facilities.
- **City of Folsom,** ***Department of Water Resources Groundwater Grant Study.*** Project Manager. This project involved groundwater investigation under the DWR grant program, and construction, development, and aquifer pump testing of new 10-inch diameter, 100-foot-deep monitoring well. Roger managed the groundwater investigation and prepared quarterly progress reports to DWR.
- **Rockwood Water PUD,** ***Reservoir Siting Study.*** Project Engineer. Roger evaluated siting alternatives for a 10-million-gallon potable water reservoir and supporting infrastructure. His analysis included a comparison of capital and operating costs. The project included coordination with SCADA improvements.
- **Eugene Water & Electric Board,** ***Integrated Resource Planning Assistance.*** Project Engineer. Roger was responsible for preparing cost estimates and preliminary project schedules for the staged development of water facilities, including water storage reservoirs, transmission pipelines, surface water treatment facilities, and groundwater wellfield system, for use with IRP modeling.
- **Umpqua Basin Water Association,** ***Water Treatment Plant Facility Study.*** Project Engineer. Roger evaluated a 4 MGD water treatment plant, including treatment optimization, facilities upgrades, impact assessment of future regulatory requirements on current treatment practices, and expansion.
- **Portland Water Bureau,** ***Groundwater Treatment Options Study.*** Project Engineer. Roger developed a study to evaluate alternatives for treatment of Portland's Columbia South Shore Groundwater Wellfield. His work included making a comparison of construction and operating costs.
- **Eugene Water & Electric Board,** ***Treatment Plant Expansion Plan.*** Project Engineer. Roger evaluated water treatment process at Hayden Bridge Water Filtration Plant, including current and future disinfection practices (with UV), filtration optimization and chemical feed practices.
- **Clackamas River Water,** ***Clackamas Basin Water Treatment & Supply Options Study.*** Project Engineer. Roger developed a regional planning study to evaluate options for the staged development of infrastructure facilities. He prepared cost estimates for regional water treatment plants and transmission pipelines.
- **City of Lake Oswego,** ***Lake Oswego Water Treatment Plant Study.*** Project Engineer. Roger prepared an evaluation study of a water treatment plant, including evaluation of alum sludge handling and disposal, chlorination practices, chemical feed systems, and treatment processes for a 16 MGD plant.
- **City of Folsom,** ***Sewer Infiltration and Inflow (I&I) Study (Smoke Testing) from Condition Assessment Program.*** Project Manager. This project involved the investigation and testing of approximately 200,000 feet of sewer mains using smoke testing method. Roger managed the project team, including outside consultant and field testing crew.

Stever Winchester

PRINCIPAL-IN-CHARGE



Steve Winchester is the Vice President of Water at Harris. He has more than 30 years of experience providing senior oversight, management and leadership in an entrepreneurial environment, with a focus on water and wastewater. He is currently overseeing a Water Supply Assessment project and has overseen over 20 Urban Water Management Plans for CA water utilities. His water master planning experience include senior insight roles at Huntington Beach and Modesto.

Steve's role on this project as Principal-in-Charge brings the necessary "big picture" perspective and oversight for our proposed Project Manager, Roger Kohne, as well as being an added senior water industry resource to Melissa Pieri, the District's Project Manager.

RELEVANT EXPERIENCE

- **City of Temple City/Sunny Slope Water Company,** ***Water Supply Assessment.*** Principal-in-Charge. The City of Temple City is preparing a Specific Plan for the area along Rosemead Boulevard between the Los Angeles County Flood Control Channel to Hermosa Avenue. The Specific Plan will provide for additional development in the area and appropriate development standards. The City is requesting the Sunny Slope Water Company to prepare a Water Supply Assessment. Harris is supporting the effort by gathering data through research and developing a Water Supply Assessment for the Sunny Slope Water Company.
- **Psomas,** Water/Wastewater Division Head. Representative California Water/ Wastewater projects completed under Steve's oversight:
  - Design of the expansion of Placer County, CA wastewater treatment plant
  - Numerous sewer rehabilitation projects for the City of Anaheim, CA
  - Introduction of APT Water's membrane biofilm reactor (MBfR) technology to Cucamonga Valley Water District including a pilot project for nitrate removal
  - Completion of over 20 Urban Water Management Plans for various Orange County, CA water districts
  - Water master plan for the City of Huntington Beach, CA
  - Studies for the Water Reuse Research Foundation
- **Black & Veatch,** Senior Vice President - Regional Manager. Representative California projects completed by Steve's region:
  - Design and build of a membrane water treatment facility for California Water in Bakersfield, CA
  - Design of a membrane water treatment facility for the South San Joaquin Irrigation District in Manteca, CA
  - Design of the expansion of the Randall Bold water treatment facility for the Contra Costa Water District in Concord, CA
  - Water master plan for the City of Modesto, CA

EDUCATION

BS, Business Administration

MBA, Business Administration

AFFILIATIONS

American Water Works Association (AWWA)

Association of California Water Agencies (ACWA)

California Association of Sanitation Agencies (CASA)

Water Environment Federation (WEF)

Ann Hajnosz, PE

FUNDING STRATEGY LEAD

Ann Hajnosz has worked closely with water and wastewater utilities for 30 years in the areas of financial planning, rates, best practices, and general utility planning and operations. She has experience working with utility staff, senior management, and utility stakeholders, including utility boards, city councils, and large customers. Her combined civil engineering and finance background provides clients with an in-depth perspective in the development and implementation of utility financial plans and utility rates.

RELEVANT EXPERIENCE

- **Honolulu Board of Water Supply, Honolulu, Hawaii,** ***Peer Review of Financial Plan, Cost of Service Study, and Rate Development.*** Project Manager. The Honolulu Board of Water Supply (BWS) is in the middle of an important master planning effort that will set the course for water system improvements for the next 30 years. The critical component of this effort will be the development of a financial plan and rate study. Over the next 20 months, Harris will be providing senior level technical review of the BWS's rate consultant's work product including a review of the revenue requirements, cost of service and rate design analyses and development of financial policies. Harris' Project Manager, Ann Hajnosz, will be assisting Board staff in the preparation for and attendance at Stakeholder Advisory Committee (SAG) meetings and other public meetings, including Board and City Council meetings. A key role for Harris is providing added assurance to BWS staff that the goals of the financial planning and rate development process will be consistent with the master planning effort and the overall goals of the BWS. Ann's experience with all of the county water agencies in the state provides unique insights into the concerns of ratepayers and other stakeholders - a key component on this project. In addition, the desired impact of this project will be the development of rate-making expertise in BWS staff. Harris' expertise will provide the highest value to BWS staff, arming them with the right questions at the right time during this important financial planning and ratemaking effort.
- **Department of Water Supply/County of Hawai'i,** ***Water Master Plan.*** Financial Task Lead. Ann was the Financial Task lead for a 20-year Water Master Plan (Plan) for the Department of Water Supply (DWS). As part of the Master Planning effort, she led the development of a financial plan and rate study to support the proposed capital improvements arising from the study. One of the main benefits of the study began with assisting DWS identify the goals and objectives for the Plan, consistent with their Strategic Plan; an all-hands meeting was held during the planning process to seek input and feedback from staff, and to gain endorsement of strategic issues, goals, and strategies. Following this critical effort, typical master planning efforts got underway including preparing an inventory of the existing facilities within each of DWS's 23 water systems; updating the hydraulic profile for each water system, and obtaining information on existing and proposed service areas with notations regarding neighboring water purveyors. In conjunction with the Plan development, multiple workshops were facilitated with DWS senior management, key staff, and DWS opinion leaders to prioritize strategic objectives, organizational



EDUCATION

MBA, Finance

BS, Civil Engineering

LICENSES

Professional Engineer, WA

SPEAKING ENGAGEMENTS

"Meeting the Challenges of Financial Stability in Light of Decreasing Water Demand" Pacific Northwest Section American Water Works Association, May 2014

"Meeting the Challenges of Financial Stability in Light of Decreasing Water Demand," Hawaii Water Works Association, October 2013

"Asset Management, A Holistic Approach" Hawaii American Water Works Association, May 2007

"Building a Consensus in Water Utility Planning" Hawaii Water Works Association, October 2004

"GASB 34: A Systematic Approach to Estimating Asset Replacement Costs" AWWA/ WEF Joint Management Conference, February 2001

The Gold Standard Approach to Securing a Stronger Financial Future for Your Water Utility
By Ann Hajnosz

Located in the Additional Information Section.

enhancements, performance metrics, and process improvements necessary to implement the Plan. Ann led a Personnel Needs Assessment as part of the implementation of the Plan which included conducting 30 interviews with DWS management and staff and developing specific recommendations for increasing the capacity of the DWS to complete the Plan.

- **County of Kauai, Department of Water, Lihue, Kauai, Hawaii,** ***Water Plan 2020 Financial Plan and Rate Study Update.*** Senior Rate Analyst. As part of a large project assisting the DOW to develop a 20-year comprehensive water plan, Ann was responsible for developing a financial planning model to balance future water needs with water affordability on the island. The task included preparation of an Excel spreadsheet model that incorporated projected population growth on the island and appropriate new service levels with DOW Board-established financial planning requirements to assess future necessary rate adjustments. A number of workshops and public meetings with the DOW's Board were held as part of the project. The results of the project included a comprehensive 20-year CIP and corresponding financial plan, and a separate rate study recommending two 32 percent rate adjustments over the coming 5-year period which were adopted by the Board.
- **County of Maui, Department of Water Supply, Wailuku, Maui, Hawaii,** ***Water Rate Study.*** Project Manager. Ann worked closely with a 14-member water rates stakeholder committee; 9 meetings were facilitated by Ann over a period of 12 months. Key topics included the level of the capital program and reserves, local surcharges, and customer class rates. A 12 percent rate increase was ultimately approved by the County Council with the full support of the water rates stakeholder committee.
- **City of Gonzales, California,** ***Water and Sewer Rate Study.*** Project Manager. Ann is currently leading a rate study to update the City's water and sewer rates. She is overseeing the development of a revenue requirements model, cost of service analysis and rate design efforts. Key challenges include addressing how the City will pay for significant future capital expenditures. The study will include efforts to comply with Proposition 218 and City Council presentations.
- **City of Santa Clarita, California,** ***Sewer Rate Study.*** Task Lead. Ann is developing the proposed sewer rate charge for a new development in the City in collaboration with other related analyses for this project. She developed a pro-forma model that projected revenues, operating expenses and capital expenses for a 15-year time period. The study will include efforts to comply with Proposition 218 and meetings with the City.
- **City of Soledad, California,** ***Reclaimed Water Rate Analysis.*** Task Lead. Ann is developing a proposed reclaimed water rate study for the City in collaboration with other related analyses to expand the reclaimed water system. She has developed a pro-forma model that will project future revenues and expenses for a contemplated reclaimed water enterprise fund. The study will include efforts to comply with Proposition 218 and meeting with the City.

"Maui County was interested in adopting a new rate structure to encourage water conservation, and selected Ann Hajnosz to analyze the various rate options and financial impacts over a multi-year period. Through a compelling and well designed presentation to the Maui County Council, Ann's clear explanation of complex technical issues led to the approval of a more conservation-oriented rate structure. Ann has consistently provided excellent rate services to the County, and the staff has enjoyed working with her for many years."

- DAVE TAYLOR, WATER UTILITY DIRECTOR
COUNTY OF MAUI, DEPARTMENT OF WATER SUPPLY

Vern Phillips, PE

LEAD FOR WATER MAIN ASSESSMENT/REPLACEMENT PHASING PLAN AND PRESSURE CONTROL ANALYSIS



Vern Phillips has over 35 years of experience in providing program management and civil planning and design for public agencies' improvement projects. He has extensive pipeline and pump station experience for potable and reclaimed water force mains, sewer and storm drain facilities, and saltwater and dredging pipelines. Vern is a nationally recognized expert in trenchless technology for pipe construction and experienced in the usage of all pipe materials, from plastic pipe to welded steel pipe to ductile iron pipe. He has provided design oversight and quality control for more than 200 trenchless pipeline and pump station projects. Vern's considerable experience in pipeline planning, assessment, design and construction will provide realistic options for main replacement both in terms of construction costs and construction methods.

RELEVANT EXPERIENCE

- **City of Carson City,** ***Silver Saddle Reclaimed Waterline.*** Project Manager. Harris was responsible for providing planning and engineering design services for this important extension of Carson City's reclaimed water distribution system. The $1.5 million project consisted of 10,000 feet of 12- to 16-inch PVC pressure pipe that transported the water to the designated wetlands area. The pipeline began with a new pressure-reducing valve station at the 16-inch-diameter connection point to the City's major reclaimed water trunk lines. Services included field investigation, collection and evaluation of supporting data, determination of possible alternatives for pipeline alignment, permit assistance, preparation of water right map, coordination with various agencies, and preparation of construction documents.
- **City of Piedmont,** ***Sanitary Sewer Rehabilitation.*** Project Director. The City of Piedmont was under a cease-and-desist order from the State Water Quality Control Board, to reduce their sanitary sewer overflows and groundwater infiltration into their collection system. Vern oversaw a Harris team that took earlier master plan studies and developed a prioritization of the most deteriorated sub-basins for rehabilitation.

  Sub-basins were selected for rehabilitation based on hydraulic modeling. CCTV videos of the pipe segments within each subbasin were then reviewed, assessed and prioritized using PACP (Pipeline Assessment Certification Program), which is the North American Standard for pipeline defect identification and assessment. Analysis was performed by coding defects in accordance with NASCCO's (National Association of Sewer Service Companies) rating system.

  Since the City has hilly, narrow roads and parks, trenchless technology was used extensively for the project. Pipebursting, horizontal directional drilling lining technology were employed to avoid many of the impacts to traffic and the residents for this $16 million, six-year sanitary sewer rehabilitation program. Through his management efforts, Vern shaved six years off the initial schedule of this project and saved the City $9 million.

EDUCATION

BS, Civil Engineering

LICENSES

Professional Civil Engineer, CA

TRAINING

American Management Institute, Project Management Pipeline Rehabilitation

AFFILIATIONS

American Council of Engineering Companies (ACEC)

American Public Works Association (APWA)

Association of California Water Agencies (ACWA)

Bay Area Water Works Association (BAWWA)

North American Societyfor Trenchless Technology (NASTT)

Pipe Users Group (PUG)

PUBLICATIONS

"Trenchless Pipeline Point Repair Techniques," WESTT Annual Conference Proceedings

"Good Practices in Trenchless Design and Construction Inspection," Trenchless Technology Magazine

The Art and Science of HDPE Fusion Welding in High Pressure Application
By Vern Phillips and Kyle Carbert

Please Visit: http://www.weareharris.com/about/our-people/p/phillips-vern

Vern Phillips, PE

- **City of Monterey,** ***Sewer Line and Lift Station Rehabilitation Program.*** Project Director. Vern is the trenchless expert for the program, design, and construction management of the $12 million project. Work includes the rehabilitation of 22,000 feet of pipelines using trenchless technology, seven sewer lift stations, and 431 manhole structures. Our services include coordination with City staff; review of our subconsultant's condition assessment report, and recommendations; and preparation of the engineer's preliminary opinion of probable construction costs for the related repairs, a prioritization list, and a color-coded citywide conditions exhibit illustrating the condition of the City's sewer system.
- **City of Monterey,** ***Sewer Line and Lift Station Rehabilitation Program.*** Project Director. Vern is the trenchless expert for the program, design, and construction management of the $12 million SRF funded rehabilitation of the City's sewer collection system, consisting of major improvements to sewer pump stations, main lines and manholes. Work includes the rehabilitation of 22,000 feet of pipelines using trenchless technology, seven sewer lift stations, and 431 manhole structures. Our services include coordination with City staff; review of our subconsultant's condition assessment report, DVDs, and recommendations; and preparation of the engineer's preliminary opinion of probable construction costs for the related repairs, a prioritization list, and a color-coded citywide conditions exhibit illustrating the condition of the City's sewer system.
- **Veolia Water North America/City of Richmond,** ***2011 Sewer Lining.*** Project Director. Near the end of 2012, Veolia and the City had a $2 million budget to rehabilitate as much of the most seriously distressed pipeline in the City as possible, before the onset of winter rains. The project included review and rehabilitation recommendations from CCTV records, field work and preparation of plans, specifications and cost estimates. Vern was in charge of the preliminary study and alternatives analyses, technical quality control, and oversight of all deliverables including project plans, specifications, construction cost and schedule.
- **City of Huntington Beach,** ***Slip-Lining 42-Inch Water Transmission Main.*** Trencless Technology Expert. On this $1.2 million project Harris' extensive experience in trenchless technology was used to analyze 3,500 L.F. of 42 steel water transmission main that experienced frequent leaks. The 50-year-old steel pipe had repeatedly required expensive repairs and had disrupted adjacent neighborhoods. A hydraulic analysis showed a 30 dia. DIP pipe would be sufficient to supply the required flow rate. Restrained joint ductile iron pipe with cathodic protection was selected. The Harris team prepared plans, specifications and cost estimates for the repair.

Kourosh Iranpour, PE, QSD

WATER MAIN ASSESSMENT/REPLACEMENT PHASING PLAN SUPPORT



Kourosh Iranpour has 28 years of engineering design experience on water systems, storm drain, sanitary sewer and streets. Kourosh is an expert in utility infrastructure and roadway design for various cities throughout the Northern CA area. He is intimately familiar with the struggles of a City agency and how best to serve their needs. Kourosh will provide support to the Water Main Assessment and Replacement Phasing Plan efforts. His comprehensive knowledge and experience with the planning, design and construction of underground utilities and streets make him the ideal resource for determining pipe condition; prioritization; realistic construction costs and schedule impacts. His experience will translate into cost savings for the District. For example, Kourosh managed the City of San Mateo El Cerrito Relief Line project, which was delivered 2.65% under design budget, and also 4.38% under the construction budget.

RELEVANT EXPERIENCE

- **City of Piedmont,** ***Sanitary Sewer Pipeline Rehabilitation Program.*** Deputy City Engineer/Project Manager. This $16 million program rehabilitated 200,000 feet of deficient sewer mains and associated lower laterals to reduce inflow and infiltration. Harris' tasks included the management and evaluation of sewer survey videos; pipe segment prioritization, evaluation, and determination of best rehabilitation methods; and PS&E documents for construction.

  Sub-basins were selected for rehabilitation based on hydraulic modeling. CCTV videos of the pipe segments within each subbasin were then reviewed, assessed and prioritized using PACP (Pipeline Assessment Certification Program), which is the North American Standard for pipeline defect identification and assessment. Analysis was performed by coding defects in accordance with NASCCO's (National Association of Sewer Service Companies) rating system.

  Kourosh was responsible for all administrative work associated with the project including coordinating with the Regional Board, State Water Resources Control Board design staff, subconsultants and extensive public relations to mitigate the construction impacts on residents as some of the sewer lines were located in private properties. Kourosh was also responsible for providing design input, managing the design team, and preparation of the construction documents in accordance with the SRF funding requirements.

  Harris performed a B/C review of the first year projects which helped save approximately $200,000 in construction costs by using pipe bursting on the mains and the laterals.

- **City of Gilroy,** ***Highway 152 and Golf Course Waterline Project.*** Project Manager. $1.3 million project included construction of approximately 950 LF of 12-inch diameter Class 350 and approximately 6,800 LF of 24-inch diameter, Class 200 ductile iron water main including all appurtenances and valving, pavement replacement, tie-ins to existing water mains, and replacement of water services to existing water meters. Detail design of various water service, fire hydrant, and hot tap connections and a revised configuration for connecting water service lines at the golf course.

  Kourosh was responsible for preparation of construction documents and traffic

EDUCATION

MS, Civil Engineering

BS, Civil Engineering

LICENSES

Professional Engineer, CA

CERTIFICATIONS

California State Water Resources Control Board, Qualified SWPPP Developer (QSD)

AFFILIATIONS

American Society of Civil Engineers (ASCE)

2017 No-Dig Show Recap: Three Trenchless Innovations Worth Knowing

Blog Post By Kourosh Iranpour, PE, QSD

Please Visit: http://www.weareharris.com/about/our-people/i/iranpour-kourosh

control plans, coordination of materials testing, monitoring pressure testing of lines, and handling all questions and concerns by the traveling public. In addition, Harris wrote and negotiated all contract change orders and prepared all progress payments.

This was a high profile project that affected residential areas. Work required the full closure of Highway 152, which had the potential to affect traffic and cause congestions. Kourosh developed a detour plan for the construction documents that was acceptable to all the stakeholders. The plan directed traffic away from the construction areas. The majority of the construction work was performed during night shifts with a full closure of Highway 152. Kourosh worked closely with the City of Gilroy and Caltrans to provide a detailed noise abatement plan due to proximity to residential areas.

- **City of San Mateo,** ***El Cerrito Relief Line.*** Project Manager. After years of negotiations and under the mandate of a cease-and-desist order from the Regional Water Quality Control Board (RWQCB), San Mateo, Hillsborough, and the District agreed to construct a dedicated sewage relief line to transport Hillsborough and District wet weather sewage flows directly through San Mateo to the regional treatment plant.

  Harris provided the design for this $15 million project, which involved placing a large-diameter underground pipeline down busy, congested commercial and residential streets. The pipeline varies between 27 and 30-inches in diameter for a distance of approximately two miles.

  Kourosh was responsible for managing the design team and subconsultants and coordinating with the regulatory and permitting agencies. The design was completed under budget despite the project being on hold for several years, and incorporating scope of work changes made by the City. Kourosh recommended upsizing one of the existing sanitary sewer lines to carry both average dry weather and peak wet weather flows, instead of adding an additional sewer line in this area with congested underground utilities. He obtained encroachment permits from Caltrans and rider for work in El Camino Real, permits from Caltrain, and assisted subconsultant H.T. Harvey & Associates in obtaining a permit from the California Department of Fish and Wildlife in a timely manner to confirm work could continue unhindered.

  A challenge on this project was crossing the San Mateo Creek within a relatively shallow cover. Open cutting through the creek would have created numerous environmental challenges and potentially delayed the project. Therefore, Harris decided to use an inverted siphon to tunnel beneath the creek.

  A variety of trenchless technology pipeline construction techniques were employed to minimize impacts to residents, businesses, and the traveling public.

- **City of South San Francisco,** ***Wet Weather Program Phase 2.*** Project Manager. Harris provided civil engineering services for the rehabilitation of sewer mains throughout the City. This $9 million project was required as a result of the State Water Resource Quality Control Board's cease and desist order for the City to rehabilitate its sewer system. The Harris team completed the designs on an accelerated schedule so the City could avoid fines associated with the order. Harris also analyzed one of the alignments for the most efficient routing and consolidation of existing parallel sewer mains.

  An existing sewer main crossed immediately under the Colma Creek, which is a concrete channel. The original approach included saw cutting the concrete channel and installing the sewer main through open trench construction, which would have been very expensive and disruptive. Harris identified a solution install a parallel steel casing by auger boring under the concrete channel and insert the sewer main into the steel casing. This creative solution mitigated and disruption to the creek and saved approximately $100,000 compared to the open trench construction method.

  Kourosh was responsible for managing the Harris design team and coordinating with subconsultants. He provided input on all aspects of the design. He facilitated resolution of design challenges, performed quality review prior to each submittal, monitored the schedule and budget, and prepared progress reports.

Kyle Carbert, PE, QSD, ENV SP

PROJECT COST ESTIMATOR



Kyle Carbert has over 10 years of experience in pipeline design, pipeline rehabilitation, and cost estimating. He takes pride in his understanding of the costs and benefits of different pipeline replacement and rehabilitation alternatives, most notably open-cut, pipe bursting, cured-in-place pipe (CIPP), and pilot tube guided auger boring (PTGB). He has applied this knowledge most recently for Ross Valley Sanitary District's 2016/2017 Diversion and Relief Pipeline Rehabilitation project, the City of Mill Valley's Miller Ave Sewer Improvements project, and City of San Mateo's El Cerrito Relief Line project.

Kyle is always looking at project trade-offs and how they affect costs. His extensive knowledge of pipeline planning, design and construction methods will allow him to accurately develop main replacement alternatives and corresponding costs.

RELEVANT EXPERIENCE

- **City of San Mateo,** ***Basin 1b Collection System Improvements, San Mateo, CA.*** Collection System Lead. Kyle's efforts on the project to date have focused on alternatives analyses of potential alignments for upsizing existing pipes and diversion sewers. Considering cost as a principal factor in his alternatives analysis, he was able to determine for one of the projects that utilizing an alternative alignment along Hobart Avenue and 16th Avenue would save upwards of $1M compared with the Maple Street/17th Ave alignment outlined in previous master planning efforts.
- **Ross Valley Sanitary District,** ***FY 2014/15, 2015/16 and 2016/2017 Diversion and Relief Pipeline Rehabilitation, San Anselmo, CA.*** Project Engineer. Kyle prepared the cost estimate for the FY2014/15 project, incorporating quantities, past bid data, and construction economic trends to deliver an accurate cost estimate. Kyle is currently leading the design efforts for the relief improvements portion of this project, which seeks to install a 15-inch diversion sewer, upsize an existing 18-inch pipe to 24-inch pipe, and install a new inverted siphon under San Anselmo Creek. This project includes excavations of greater than 25 feet deep on a busy 30 foot wide roadway that cannot be closed. Kyle extensively compared the costs and traffic impacts of open trench with PTGAB for this section, ultimately determining that the slightly greater cost of PTGAB justifies the decreased traffic impacts and excavation risks. Bids ranged from $5,387,387 and $5,887,083 for the FY2014/15 project, meaning Kyle's estimate of $5,699,113 accurately considered market conditions, construction economics, and the bid climate.
- **City of Mill Valley,** ***Miller Avenue Sewer System Improvements, Mill Valley, CA.*** Project Manager. Kyle performed hydraulic analysis and reviewed existing CCTV videos to determine the sewer rehabilitation work required in advance of a street resurfacing project. During final design, Kyle finalized rehabilitation methods and prepared plans for over 9,000 LF of sewer mains and trunk lines. Upon examining costs and the City's priorities, Kyle determined that CIPP would meet the City's needs for many of the pipes, and wound up being the primary rehabilitation method. Utilizing trenchless technologies cut the project cost from over $4M to under $2.5M.

EDUCATION

MS, Civil Engineering

BS, Civil Engineering

LICENSES

Professional Engineer, CA

CERTIFICATIONS

California State Water Resources Control Board, Qualified SWPPP Developer (QSD)

Institute for Sustainable Infrastructure (ISI), Envision Sustainability Professional (ENV SP)

AFFILIATIONS

American Society of Civil Engineers (ASCE)

The Art and Science of HDPE Fusion Welding in High Pressure Application
By Vern Phillips and Kyle Carbert

Please Visit: http://www.weareharris.com/ideas/whitepapers/the-art-and-science-of-hdpe-fusion-welding-in-high-pressure-applications

Craig Gooch

ASSET INVENTORY/PROJECT POLYGON DEVELOPMENT LEAD



Craig has 38 years of experience and leads the **Psomas** GIS Services Team and has managed diverse public works infrastructure GIS project throughout his GIS career. He is a recognized expert in GIS design, data conversion and management, enterprise GIS strategy and design, and brings strong communication and leadership skills to the the 2030 Water Main Replacement Study.

EDUCATION

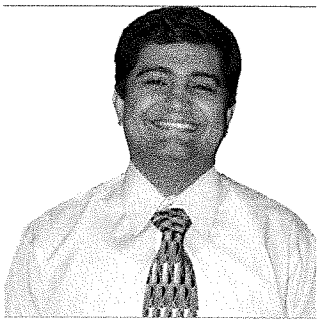
BS, Geography

RELEVANT EXPERIENCE

- **City of Citrus Heights,** ***Enterprise GIS Design and Implementation.*** Project Manager. Craig was responsible for the identification of GIS needs and development of a GIS implementation plan for the City of Citrus Heights. He served as the senior consultant responsible for planning and direction of enterprise GIS. This consisted of web based GIS integrated with document imaging, permitting, business licenses, service requests, and spatial data updated and coordinated with Sacramento County.
- **Alameda County Public Works,** ***Asset Data Standardization & GIS Integration with MaintStar and CIP Implementation.*** Project Director. Key deliverables included comprehensive asset inventory for all road and flood control assets, integration with CMMS for asset based work management, Capital Improvement GIS viewer, integration with hydraulic models, and maintenance practices.
- **California Water Service Company,** ***Enterprise GIS Master Plan.*** Team Lead. GIS needs assessment and enterprise-wide GIS program definition, design, and implementation planning. The system serves 21 distributed water districts and the general office with integration with CIS, CMMS, LIMS, document management, and hydraulic models. Subsequent services include data conversion vendor RFP development and vendor management, Esri geodatabase design and deployment, and data quality management program.

Pranam Joshi, PE

FUTURE WATER DEMAND PROJECTIONS LEAD, HYDRAULIC MODELING, PRESSURE CONTROL ANALYSIS



Pranam Joshi will lead the future water demand projections for **NCS.** He has over **16 years** of professional experience specializing in water/wastewater system modeling, energy management, and asset management. He is recognized nationally as a premier hydraulic modeling and software leader. Pranamhas experienced with hydraulic software such as, WaterCAD, WaterGEMS, InfoWater, InfoSWMM, H2OMap SWMM, EPASWMM, EPANET, KYPIPE, H2OMap, MikeNet, etc. and related modeling applications.

EDUCATION

BE, Chemical Engineering

MS, Environmental Engineering

LICENSES

Professional Engineer, AZ

He has recently served as project manager for wastewater master plan and collection system model development projects; as well as wastewater modeling using WaterGEMS, including calibration and development of a 100,000 pipe wastewater model. Pranam has performed water asset management assignments with GIS integration and understands the system operation and configuration.

RELEVANT EXPERIENCE

- **City of Phoenix, AZ,** ***Several Wastewater Modeling and Master Planning Projects.*** Project Manager. Using WaterGEMS, these projects included calibration and development of a 100,000 pipe wastewater model.
- **Rio Rancho, NM,** ***Wastewater Modeling, Optimization and Master Planning.*** Project Manager. Deliverable on this project included wastewater modeling, optimization and master planning.
- **City of Flagstaff, AZ,** ***Several Water Asset Management Assignments.*** Project Manager. Pranam has performed several water asset management assignments with GIS integration for the City of Flagstaff, and understands the system operation and configuration.

Laura Mason-Smith

PUBLIC ENGAGEMENT



Laura Mason-Smith of Mason-Smith Success Strategies will be the lead for the Public Engagement/ Stakeholder Outreach/ Customer Advisory Committee/ Presentations efforts for the Harris team. She will work closely with Harris' project manager, Roger Kohne."

EDUCATION

BS, Business Administration

For over **28 years,** Laura has been a valued resource to hundreds of public agencies, large and small businesses, and professional associations. She creates comfortable and productive environments for people to share their ideas, discuss potentially controversial questions, develop recommendations or make decisions, and plan for the future. Laura has a strong commitment to the value of public input, and meetings are designed and facilitated to allow individuals and groups with widely divergent viewpoints and interests to work together cohesively over the long term to achieve high-value results.

RELEVANT EXPERIENCE

- **Citrus Heights Water District,** ***Annual Strategic Planning Processes.*** Design and facilitate Strategic Planning Processes. Laura worked closely with Staff Leadership and Board Members to (1) Clarify desired outcomes for the processes through individual interviews of Board Members and key managers; (2) Design the Strategic Planning Processes; (3) Facilitate the public Strategic Planning Sessions.
- **City of Sacramento,** ***Developing Consensus on an On-Street Paid Parking Program.*** Principal Consultant. This nine-month project included seven meetings of a Community Advisory/ Working Committee consisting of a diverse group of merchants and property owners, City staff, and representatives from other related public entities. Also included were three well-attended open public meetings. The City was able to move forward with implementing a paid parking program in Old Sacramento that reflected the input from the various stakeholder groups.

WHITE PAPER

The Gold Standard Approach to Securing a Stronger Financial Future for Your Water Utility

By Ann Hajnosz, PE

Executive Summary

Water utilities are trusted stewards of long-lived critical infrastructure assets. But many agencies are struggling with a daunting challenge: how to plan and pay for the tremendous backlog of replacing this aging infrastructure.

While each utility's circumstances are unique, there is a Gold Standard approach to planning that will better align a utility's financial future with the assets they must protect.

Customizable to any community, the steps in this approach help agencies efficiently address their infrastructure funding challenges by gaining buy-in from all stakeholders—including both internal and external decision makers to customers—while providing increased clarity of utility priorities for staff and avoiding common pitfalls.

Customizable to any community, the steps in this approach help agencies efficiently address their infrastructure funding challenges.

Water's New Normal

Water utility funding used to be simple. Through the 1980s, rates were low and reliance on federal subsidies was common. Times have changed.

Federal subsidies have dried up, plants and pipes are deteriorating fast, and state and local governments, i.e. ratepayers, are now the principal source of funding for utility operations. These customers are feeling the pressure from not only water utilities but other demands on their wallets as well. As a result, customers demand more transparency regarding costs and inclusion in decisions that affect their budgets.

Across the country, agencies of all sizes have found ways to proactively address this new reality. They have adopted a Gold Standard approach to planning that helps them achieve their goals. Your agency can do the same.

Following all of the steps in this approach is optimal, but incorporating even some of them should help you gain clarity, financial security and the necessary buy-in around how to pay for future infrastructure projects.



The Gold Standard, Step by Step

The Gold Standard takes a holistic planning approach, and for a good reason: Bringing every element and all stakeholders into alignment is a recipe for success. Each ingredient adds to its effectiveness.

STEP 1 SETTING YOUR BIG-PICTURE STRATEGY (STRATEGIC PLANNING)

Align your team

To understand what you are dealing with, you have to break down the silos and get everyone talking. In an ideal strategic planning effort, leaders and staff throughout the agency come together to discuss their goals and how those goals support the overall mission and vision of the utility. Whether it be maintaining a high level of efficiency to meet current utility demands and maintain a high level of reliability and safety, or preparing your staff to be flexible in meeting new and emerging issues, or both, strategic planning is an approach to align all utility resources towards a common goal.

A big part of these types of efforts involves understanding your team's communication and leadership styles. Being open to learn new perspectives and think differently are keys to coming together as a team and embracing your utility's vision and mission. Often multiple workshops and all-hands meetings are utilized to prioritize strategic objectives and identify potential organizational enhancements, performance metrics, and process improvements, to seek input and feedback from staff and to gain endorsement of strategic issues, goals, and actions. Board members and other outside decision makers can also be part of this process.

Being open to learn new perspectives and think differently are keys to coming together as a team and embracing your utility's vision and mission.

If it has been awhile since your utility has engaged in long-term planning, prepare to open Pandora's Box here: Not everyone will agree or start from the same assumptions. Yet as they talk, they should start to see plenty of common ground and find ways to align priorities across departments. Ultimately, this forms a framework for moving ahead and guides your future actions. Many utilities at this stage will adopt a new or confirm their existing mission and vision.

Engage all your stakeholders

After your leadership and staff have rallied around a common mission and vision, it is time to align other key stakeholders, including customers. Employ this tactic early and often.

Gaining input involves more than surveys about rate proposals. You want to open a dialogue about stakeholder priorities and perceptions, which help you determine courses of action most likely to secure buy-in. Discussions could



include your community's urgent water needs or customers' knowledge of what it takes to achieve current service levels and their opinion of rate changes.

Organizing a stakeholder committee, sometimes referred to as a "blue ribbon committee" or "stakeholder advisory committee", is an effective approach for managing stakeholder communications through long, what can often turn out to be, multi-year planning efforts. This committee should represent the diverse perspectives of your stakeholders, and committee members should pledge their commitment for the duration of the planning effort. The most effective stakeholder committees have strong internal leadership, organization and planning skills, an openness to learn and hear different viewpoints and the courage to make tough decisions.

Be careful to manage expectations—draw clear boundaries around what you will and will not do and recruit partners for help when possible. Encourage input but remind people that not every idea can make it to the final plan. Finally, respect members' participation—remember these committees are made up of volunteers so be respectful with people's time and effort.

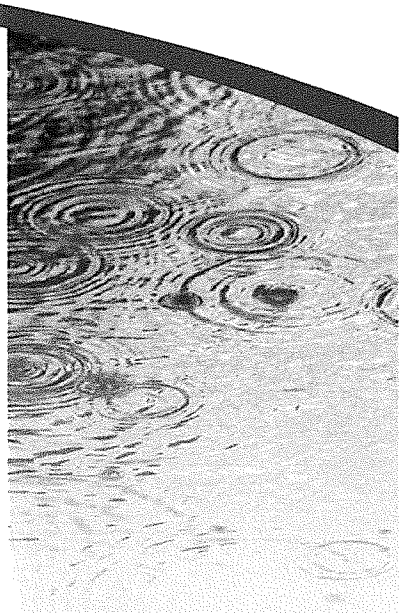
Now that you have a clearer vision of your agency and stakeholders, it is time to lift your head and look further down the road.

STEP 2 CREATING YOUR ROADMAP (MASTER PLANNING)

You will sharpen your foresight by merging your information into a long-term master plan—a roadmap that will guide you through every major decision.

Since your master plan will include project and financial forecasts several years into the future, everyone can look to it as a touchstone, whether to anticipate needs, determine priorities or help answer major questions, including:

- What is the current condition of our assets?
- What do customer and consumption growth look like over the decades to come?
- What are our growth related capital needs down the road?
- What are the biggest renewal and replacement projects?
- What will we need to pay for these projects?
- What will the CIP cost if it's started now or in five years?
- What process will we use to prioritize capital needs?
- How will it impact our operations?
- What are the benefits of related rate increases?



Targeted communications

Whether striving for partner buy-in or laying the groundwork for a vote, agencies need to tailor communications for each audience.

Some agencies devote significant time to understanding cultural backgrounds and effective community communications practices of their customers, including when and where they would most likely attend public hearings. Increasingly we are seeing the need for public communication to take place in multiple languages; think about engaging a public relations specialist to address these specific needs. On a municipal level, meeting with a city council's public works subcommittee might be a first step.

- How fast can we go given stakeholders' appetite for change?
- Will the agency staff need new skills and how does that fit with the aging workforce?
- Which additional resources are needed to finish this work?
- What process should we use to validate our rate assessments?

In some states such as Washington, state law mandates the preparation of a master plan every five years; others states may not have such a prescriptive requirement. Nonetheless, master plans are keys to building a foundation for gaining support to secure your utility's financial future. It is the "evidence" you will need to convince stakeholders, again, both internal and external, decision-makers and ratepayers, that current and future rate adjustments are needed to secure your financial future that will enable you to fulfill the mission of the utility.

Address large, looming issues

Where do you stand with earthquake preparedness? What steps are you taking to mitigate the effects of climate change on water supply and delivery? What are the emerging issues and does your utility have the flexibility and resources to address them? What does your future workforce look like?

While you have your team's attention focused on the long term, take some time to examine your agency's resiliency planning, succession planning and larger regional projects that are becoming more common.

STEP 3 SECURING YOUR FINANCIAL FUTURE

Always look ahead

Of all the people who buy new houses, very few will put away 2 – 3% of their money in the early years to cover a new roof, furnace or other major replacement down the road. However, water agencies who keep depreciation in mind are better positioned to replace their aging infrastructure while maintaining financial security.

Even if your agency only allows for annual or biannual rate adjustments, agencies can alert the council and public to upcoming infrastructure needs by presenting a five-year or more outlook. This allows customers, whether you are a single-family or large business, to plan their own long-term budgets and ensure their financial security.

This type of foresight does not match legislative or election cycles, which makes it a heavier lift, but the public values it. Case in point: An amendment to the



Bring "out of sight, out of mind" into view

During the preparation of a water master plan, the utility general manager (GM) presented the results of the water master plan at numerous community meetings and carried around a 1-foot section of corroded pipe to show customers the condition of the water system. It was a compelling viewpoint that helped build support for the ultimate approval of two 32% rate increases over a 5-year time period—significant rate increases, but necessary to support the results of the master plan and ultimately secure the utility's financial future in meeting their mission.

City and County of Honolulu's city charter requiring city departments in charge of infrastructure to prepare long-term plans passed with 80% of the vote this past November.

Tell a story with metrics

Preparing a financial model for baseline operations leads to the next step: proposing a change to operations and showing its effect on rates. Then you can share a narrative: This is where we are now, here's where we're going to be.

If you're behind on infrastructure replacement and learn that the capital budget should be $4 million per year instead of $1 million per year as a result, your story will point out the benefits that results from spending the higher level of capital and the various ways to finance those projects. That is how you change the dialogue and build confidence in and acceptance of your financing plan.

When it gets down to revising rate structures, there are a couple of current topics garnering interests from water utilities, including finding the right balance of recovery of fixed and variable costs through rate design and the impacts of a recent California rate case, *Capistrano Taxpayers Association v. City of San Juan Capistrano (2015)*. The first topic is one that is getting more attention as utilities try to stabilize revenues, especially in areas stricken by drought. While the second topic seems to be California-specific, the takeaways from this decision have implications for all water utilities as the decision required California water utilities to use actual cost bases for setting multi-tiered volume rates.

Explore debt as a valuable tool

By taking a 360-degree view and asking the right questions, not just following a formula, agencies can find the fairest ways to spread the cost of infrastructure improvements. The two most common sources of paying for infrastructure are cash financed (through rates) and debt financed. Right now, the rates for municipal borrowing are at their lowest level ever, so that remains attractive. Still many utilities are debt averse, preferring to "pay as you go" and cash-finance nearly all capital improvements.

Remember that we are mostly talking about financing long-lived assets—assets that will provide benefits to generations of ratepayers. Shouldn't future generations pay their "fair share" instead of burdening current ratepayers with the upfront costs? By using debt to finance a portion of replacement needs, you are aligning the benefits of the new assets with the people who are going to benefit from them down the road.

Even if some debt financing approaches have been rejected before, there are innovative ones to examine or combine: The District of Columbia Water and Sewer Authority recently used 100-year (century) bonds; some states have financed sustainability projects with "green bonds"; and others have used

New loan program on the horizon

The federal government is preparing a new tool to help you finance infrastructure investments. The Water Infrastructure Finance and Innovation Act (WIFIA) authorizes the EPA to provide long-term, low-cost loans at U.S. Treasury rates for up to 49% of eligible costs for projects of over $20 million for large communities and over $5 million for small communities (populations of under 25,000).

As of December 2016, the EPA is getting ready to implement this pioneering program to accelerate investment. WIFIA is structured to work hand-in-hand with the State Revolving Funds program, allowing states and prospective borrowers to choose the best one for the project or use the two programs together.

President Obama's FY17 budget proposal called for a $20 million investment in WIFIA, which—because of its inventive structure—would be expected to support nearly $1 billion in loans for new water projects.

public-private partnerships and risk-sharing between municipal utilities and private companies. These approaches provide more options to close longstanding funding gaps.

Find common ground

Even with a master plan in place every five years or so, you should still seek input from others often. Stakeholders' ongoing investment in the process should accelerate your implementation of the right solution. Once they understand your roadmap, you can work together to resolve any issues and reach the most mutually beneficial agreements in a timely manner.

In one agency, a water rate study revealed that large customers such as hotels and industrial customers were eager to improve water service reliability and were willing to sign on for rate increases necessary to provide this higher level of service. After all, a water main break posed a tourism nightmare. Yet local seniors said they could not afford the proposed hike.

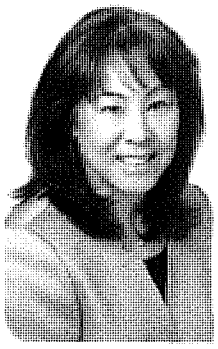
If these two competing voices talked to council members, the rate proposal may never have gotten traction, but the agency's consultant negotiated a solution: hoteliers offered to shoulder more of the increase to unburden the seniors. The process required modeling the impacts correctly, showing the effects and striking an agreement before bringing the solution up for a council vote. The rate proposal passed in classic "win-win" fashion.

Clarity on the issues makes progress possible.

Raise Your Planning Standards

Water agencies of any size can successfully reach the Gold Standard in planning. The process positions agency leaders and other stakeholders to realize positive results in the near and long term.

If any part of the approach seems daunting, reach out for help. A skilled consultant can help you put the pieces together and prepare your agency for whatever the future may hold.



About the Author

Ann Hajnosz, PE, Senior Director—Water and Public Finance
ann.hajnosz@weareharris.com • 206.926.8400

Ann has collaborated with water, wastewater, electric and solid waste utilities for 30 years on financial planning, rates and best practices for utility planning and operations. As a result, she's familiar with the most pressing issues facing utilities today: aging infrastructure, capital financing, cost recovery via user fees and the need to balance conflicting stakeholder needs and wants.

Ann dealt with these issues during her tenure as client services manager for the Hawaii utilities market and her recent stint as the client services manager for the King County Wastewater Treatment Division in Seattle. She also led client management and sales efforts for other clients in Washington state and Guam. Her approach helps clients perform better, save money and meet or exceed stakeholder expectations.

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CITRUS HEIGHTS WATER DISTRICT
PROJECT 2030 WATER MAIN REPLACEMENT STUDY
Level of Effort and Fee Proposal

TASK, PHASE, DESCRIPTION / STAFF (See Note 1)	HARRIS & ASSOCIATES					SUBCONSULTANTS (See Note 2)					TOTALS
	PC	PM / Sr. Eng	Eng. (Avg)	Admin	Harris Total	Psomas	NCS	Raftelis	Laura M-S	Other	
	HOURS										
1.0 ASSET INVENTORY / POLYGON DEVELOP.											
1.1 Asset Management (See Note 3)		12				$35,500.50					
1.2 Polygon Development (See Note 4)		8				$14,700.00					
1.3 Document Scanning Support						$12,551.96					
SUBTOTAL HOURS	0	20	0	0	20						
SUBTOTAL DOLLARS	$0	$3,800	$0	$0	$3,800.00	$62,752.46	$0.00	$0.00	$0.00	$0.00	$66,552.46
2.0 FUTURE WATER DEMAND PROJECTIONS											
2.1 Demand Forecast		12	24				$5,040.00				
2.2 Tech Memo		12	16	16							
SUBTOTAL HOURS	0	24	40	16	80						
SUBTOTAL DOLLARS	$0	$4,560	$6,800	$1,680	$13,040.00	$0.00	$5,040.00	$0.00	$0.00	$0.00	$18,080.00
3.0 WATER MAIN ASSESSMENT											
3.1 Review Past Studies and Data		8	12								
3.2 Creek Crossing Inspection		8	40								
3.3 Water Main Assessment		24	80				$15,750.00				
3.4 Field Inspection Plan		20	16							$5,000.00	
3.5 Tech Memo	2	40	16	20							
3.6 Software Setup and Validation		4					$3,675.00				
3.7 Software Training		4					$5,250.00				
SUBTOTAL HOURS	2	108	164	20	294						
SUBTOTAL DOLLARS	$500	$20,520	$27,880	$2,100	$51,000.00	$0.00	$24,675.00	$0.00	$0.00	$5,000.00	$80,675.00
4.0 PROJECT COST ESTIMATES											
4.1 Cost Estimates		8	40								
SUBTOTAL HOURS	0	8	40	0	48						
SUBTOTAL DOLLARS	$0	$1,520	$6,800	$0	$8,320.00	$0.00	$0.00	$0.00	$0.00	$0.00	$8,320.00
5.0 WATER MAIN REPLACEMENT PHASING PLAN											
5.1 Phasing Plan	2	16	32	8							
SUBTOTAL HOURS	2	16	32	8	58						
SUBTOTAL DOLLARS	$500	$3,040	$5,440	$840	$9,820.00	$0.00	$0.00	$0.00	$0.00	$0.00	$9,820.00
6.0 FUNDING STRATEGY / RATE OPTIONS ANALYSIS											
6.1 Funding Strategies for Phasing Options	2	16	0					$41,722.80			
SUBTOTAL HOURS	2	16	0	0	18						
SUBTOTAL DOLLARS	$500	$3,040	$0	$0	$3,540.00	$0.00	$0.00	$41,722.80	$0.00	$0.00	$45,262.80
7.0 IMPLEMENTATION PLAN											
7.1 Prepare Final Report / Implementation Plan	2	40	24	20							
SUBTOTAL HOURS	2	40	24	20	86						
SUBTOTAL DOLLARS	$500	$7,600	$4,080	$2,100	$14,280.00	$0.00	$0.00	$0.00	$0.00	$0.00	$14,280.00
8.0 PUBLIC ENGAGEMENT / STAKEHOLDER OUTREACH											
8.1 Prepare Public Engagement strategy	2	10							$11,025.00		
Public Outreach Meetings (6 total)		18	32						$30,240.00		
8.2 Board of Directors Meetings (3 total)		6							$5,670.00		
SUBTOTAL HOURS	2	34	32	0	68						
SUBTOTAL DOLLARS	$500	$6,460	$5,440	$0	$12,400.00	$0.00	$0.00	$0.00	$46,935.00	$0.00	$59,335.00
HOURS AND COST (See Note 5)											
HOURS PER POSITION	10	266	332	64	672						
HOURLY RATE (TYPICAL)	$250.00	$190.00	$170.00	$105.00							
TOTALS	$2,500.00	$50,540.00	$56,440.00	$6,720.00	$116,200.00	$62,752.46	$29,715.00	$41,722.80	$46,935.00	$5,000.00	$302,325.26
EXPENSES											
Travel					$2,000.00						
Admin/Reproduction					$2,000.00						
TOTAL EXPENSES:											$4,000.00
TOTAL BASE FEE PROPOSAL											**$306,325.26**
10.0 ADD/DEDUCT ITEM #1: SYSTEM-WIDE PRESSURE CONTROL ANALYSIS											
10.1 Pressure control analysis		12	24				$10,000.00				
10.2 In-line Hydro Analysis		16	20								
10.3 Tech Memo		8	24	20							
SUBTOTAL HOURS		36	68	20	124		$10,000.00				
SUBTOTAL DOLLARS		$6,840	$11,560	$2,100	$20,500.00		$10,000.00				$30,500.00
11.0 ADD/DEDUCT ITEM #2: MARKETING RESEARCH / PUBLIC OPINION SURVEY											
SUBTOTAL HOURS		12	0	6	18						
SUBTOTAL DOLLARS		$2,280	$0	$630	$2,910.00				$5,040.00	$28,638.75	$36,588.75

NOTES

1 Staff Abbreviations

		Project Staff
PC	Principal-In-Charge	S. Winchester
PM	Project Manager	R. Kohne
Sr Eng	Senior Engineer	A. Hajnosz, V. Phillips
Eng	Engineer	K. Iranpour, K. Carbert
Admin	Administration / Clerical	

2 5% Markup on Subconsultants
3 Document scanning by Consultant.
4 Does not include inventorying of historical District work orders
5 Project Management Time is included in each of the above tasks

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: BUDGET AMENDMENT – TRANSFER OF FUNDS WITHIN CAPITAL IMPROVEMENT PROGRAM BUDGET
STATUS	: Action Item
REPORT DATE	: October 10, 2017
PREPARED BY	: David M. Gordon, Operations Manager

OBJECTIVE:
Consider authorizing a budget amendment to reallocate funds totaling $290,000 within the Capital Improvements Program 2017 Budget.

BACKGROUND AND ANALYSIS:
Citrus Heights Water District (CHWD) staff reviews the budget and expenditures year-round to monitor operations. Recently, staff identified forecasting and expenditure issues requiring attention, which focuses on the utilization of the Cityworks software system to calculate labor costs. Specifically, the Cityworks system did not account for wages, overtime, and benefits in a manner consistent with CHWD's financial systems. Since the issue was identified, CHWD staff has implemented a Project Cost Accounting system that utilizes a variety of software to correctly monitor staff time, material, equipment and contracting services for a particular project. This Project Cost Accounting system allows all staff to assess the budgeted funds for a particular project in real-time. Now that CHWD have been able to detect the problem and correct it for future years, a need for a one-time budget adjustment has been identified to address the problem for the remainder of this budget year.

The CHWD Capital Improvement Program (CIP) budget identifies capital projects and equipment purchases which add to CHWD's total capital value as a whole. Some of these CIPs appear annually in the CIP budget such as Emergency Water Main Replacements, and the replacements of Water Valves, Services, Meters and Fire Hydrants. Although these annual projects are somewhat consistent and planned for year-to-year, there are fluctuations in the field response of these projects. For example, this year CHWD has experienced an increase in water service leaks, thus requiring more water service replacements than anticipated. Staff has replaced 255 water services year-to-date and budgeted for 270 for the year. In other areas of the annual projects, CHWD has not had to respond to any emergency water main replacements this year, and has been required to replace fewer fire hydrant and mainline valves than projected.

Also, CHWD Operations staff is currently mobilizing for construction of the C15-130 Poplar Ave/Mesa Verde High School Water Main Replacement Project. The budget for this project is $112,335. The City of Citrus Heights recently placed stipulations on the project which include more stringent storm water protection, protection of Cripple Creek and a tree permit for the oak trees within the project area. All of these items stipulations come with a cost, thus increasing the estimated total project cost.

In considering a budget amendment request, no undesignated reserves are required. Budget savings from existing projects are proposed to be reallocated as described below.

One funding source for the proposed budget amendment from the C15-131 Baird Way 8" Water Main Replacement Project. This Project is nearing completion. The overall budget for the project was $510,337, and staff estimates that the final completion costs will total approximately $360,000. This will result in a net savings of approximately $150,000 in budgeted funds.

Additional funding for the proposed budget amendment comes from field response program areas discussed above and itemized below.

To meet the expenditure requirements outlined above, staff requests a budget amendment of $290,000 within the 2017 CIP Budget. Below is a summary of the budget amendment request. Again, this budget amendment request will result in a zero sum ($0) financial impact to CHWD's 2017 Budget.

From		To	
Description	**Amount**	**Description**	**Amount**
C17-010 Water Main Repl.	$40,000	C17-012 Water Service Repl.	$250,000
C17-011 Water Valve Repl.	$70,000	C15-130 Poplar Ave/Mesa Verde Main	$40,000
C17-014 Fire Hydrants	$30,000		
C15-131 Baird Way 8" Main	$150,000		
TOTAL	**$290,000**	**TOTAL**	**$290,000**

RECOMMENDATION:
The staff recommendation is to approve the budget amendments summarized below:

From		To	
Description	**Amount**	**Description**	**Amount**
C17-010 Water Main Repl.	$40,000	C17-012 Water Service Repl.	$250,000
C17-011 Water Valve Repl.	$70,000	C15-130 Poplar Ave/Mesa Verde Main	$40,000
C17-014 Fire Hydrants	$30,000		
C15-131 Baird Way 8" Main	$150,000		
TOTAL	**$290,000**	**TOTAL**	**$290,000**

ACTION:

Moved by Director _____, Seconded by Director _____, Carried _____

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	: Discussion and Possible Action on Resolution Authorizing Temporary Use of Sick Leave by Employees
STATUS	: Action Item
REPORT DATE	: October 13, 2017
PREPARED BY	: Christopher Castruita, Management Services Supervisor/Chief Board Clerk

OBJECTIVE:
Consider adoption of Resolution 12-2017, temporarily authorizing the General Manager to approve the use of Sick Leave by eligible employees evacuated due to the 2017 natural disasters.

BACKGROUND AND ANALYSIS:
Natural disasters have impacted Sacramento and surrounding areas in an extraordinary way in 2017. The failure of the Oroville Dam in February forced the evacuation of an estimated 188,000 residents of Butte, Yuba and Sutter counties. Also, 17 wildfires rage across California that have burned 221,754 acres and killed 31 individuals as of this writing.

Several employees of the Citrus Heights Water District (CHWD) and their families have been negatively impacted by these natural disasters and the corresponding forced evacuations. Under current CHWD policy, these employees would be required to utilize Annual Leave, Management Leave, or Compensatory Time Off (CTO) under current CHWD policy. CHWD Policy 4310, Sick Leave, states that employees are authorized to use Sick Leave:

a. When the employee or a family member is ill, or
b. When the employee or a family member who resides with the individual has a medical, dental, or vision appointment.

Annual leave, unlike Sick leave, is controlled by the employee and has a cash value that is due to the employee by CHWD upon separation from the District. As an employer, CHWD values dependability and has committed to providing exceptional customer service to both rate-payers and its team members. To live up to these public values and commitments, staff and General Counsel explored means to provide authorization to make employees whole while addressing these unexpected catastrophic events.

As a proposal for Board consideration, staff and the General Counsel's office drafted Resolution 12-2017 to provide an option to address these concerns while maintaining the policy-level controls. The proposed resolution would provide the General Manager with temporary authorization to approve the use of accrued Sick Leave for the purpose of affected staff members evacuating their home or assisting a close family member with evacuating a home that is a result of a mandatory evacuation due to a natural disaster. This authorization is limited in scope, and does not create a new benefit or create a requirement for the General Manager to respond on any case outside of the scope directly described within the resolution.

The authorization provided to the General Manager is available only to employees whose home or whose close family members' home(s) is/are located within a mandatory evacuation area. Consistent with Policy 4311, close family is defined as any of the following:

Parents	Children
Spouses*	Adopted Children
Mother-in-law*	Father-in-law*
Brother	Brother-in-law*
Sister	Sister-in-law*
Stepparents*	Stepchildren*
Domestic Partner	Domestic Partner's Children
Grandparents	Grandchildren
Uncles	Aunts
Guardians/Wards	

Employees who request the General Manager's approval to use sick leave would be required to show proof that their home was evacuated, such as a notice of mandatory evacuation or California Department of Forestry and Fire Protection (CalFire) Fact Sheet. The authorization will be retroactive to February 1, 2017 in order to allow for staff that were affected by a mandatory evacuation order following the failure of the Oroville Dam on February 12, 2017. The authorization is proposed to automatically expire on December 31, 2017 in order to provide adequate time for the General Manager to deal with any further issues that may occur throughout the fire season.

Moving forward, staff and General Counsel will explore options to update CHWD's various leave policies so as to provide greater discretion to address similar natural disaster circumstances in the future.

RECOMMENDATION:
Adopt resolution 12-2017, temporarily authorizing the General Manager to Approve the Use of Sick Leave by eligible employees evacuated due to the 2017 Natural Disasters.

ATTACHMENT:
Resolution 12-2017

ACTION:
Moved by Director _____, Seconded by Director _____, Carried _____

*Current and Former

CITRUS HEIGHTS WATER DISTRICT
RESOLUTION NO. 12-2017

RESOLUTION OF THE BOARD OF DIRECTORS OF
CITRUS HEIGHTS WATER DISTRICT
TEMPORARILY AUTHORIZING THE GENERAL MANAGER TO
APPROVE THE USE OF SICK LEAVE BY EMPLOYEES
EVACUATED DUE TO NATURAL DISASTER

WHEREAS, multiple employees of the CITRUS HEIGHTS WATER DISTRICT ("District") and their close family members have been negatively impacted by evacuation orders due to natural disasters causing the Oroville Dam evacuation in February 2017 and the various evacuations due to northern California wildfires in October 2017 ("the 2017 Natural Disasters"); and

WHEREAS, the 2017 Natural Disasters presented unique circumstances to which the District wishes to respond in support of affected employees; and

WHEREAS, the District permits its employees to accrue sick leave time for use in caring for themselves and family members dealing with health or injury issues; and

WHEREAS, the various leaves provided by the District to its employees are deemed to have substantial public benefit in terms of attracting and retaining a qualified workforce, and in terms of optimizing District employees' ability to come to work refreshed and able to productively focus on their jobs during working hours; and

WHEREAS, this temporary extension of eligible affected employees' ability to utilize accrued sick leave as set forth below is not anticipated to have negative operational impacts nor result in significant additional costs to the District;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the CITRUS HEIGHTS WATER DISTRICT as follows:

1. The General Manager is temporarily authorized to approve eligible District employees' use of their own accrued Sick Leave to attend to 2017 Natural Disaster-related mandatory evacuations and post-evacuation cleanup.

2. "Eligible District Employees" are those who:

a. Had accrued District Sick Leave available at the time of the 2017 Natural Disaster which impacted them or their Close Family member. "Close Family" member shall have the same meaning here as in District Policy 4311 (Compassionate Leave); and

b. Personally own or rent real property within an area subject to a mandatory evacuation order during one of the 2017 Natural Disasters, or have a Close Family member who owns or rents real property within an area subject to a mandatory evacuation order during one of the 2017 Natural Disasters ("an Affected Close Family Member"); and

c. Actually took leave in calendar year 2017 (whether paid or unpaid) from their

District employment to attend to 2017 Natural Disaster evacuation-related personal business for themselves or to assist an Affected Close Family Member.

3. Upon written approval of the General Manager, Eligible District Employees may utilize up to 160 hours of their own accrued Sick Leave to attend to evacuation-related personal business or to assist an Affected Close Family Member. An employee who already took leave for such qualifying purpose may be permitted now to substitute Sick Leave for the form of leave previously utilized.

4. The General Manager's discretion to approve employees' use of Sick Leave for the evacuation-related purposes described in this Resolution shall automatically expire on December 31, 2017.

5. In granting approval of the limited, temporary additional purpose for which Sick Leave may be used, as provided in this Resolution, the Board is not altering any other parameter of District Sick Leave (accrual, permitted usage, etc.). District Sick Leave has no direct cash value and may not be "cashed out" at the time of separation from District employment.

PASSED AND ADOPTED by the Board of Directors of CITRUS HEIGHTS WATER DISTRICT, this 18th day of October, 2017, by the following vote, to wit:

AYES: Directors
NOES: Directors
ABSTAIN: Directors
ABSENT: Directors
SEAL

Caryl F. Sheehan, President
Board of Directors
Citrus Heights Water District

ATTEST:

Hilary M. Straus, Secretary
Citrus Heights Water District

CERTIFICATION:

I, HILARY M. STRAUS, hereby certify and acknowledge that Resolution 11-2017 was adopted by the Board of Directors of Citrus Heights Water District at a duly called and noticed regular meeting of said Board on the 18th day of October 2017.

Hilary M. Straus, Secretary
Citrus Heights Water District

AGENDA ITEM: MS-1

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	:	CORPORATION YARD SAFETY IMPROVEMENTS UPDATE
STATUS	:	Information Item
REPORT DATE	:	October 9, 2017
PREPARED BY	:	Missy Pieri, Engineering Manager/District Engineer

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Engineering Manager/District Engineer Missy Pieri will provide an update on the status of the Corporation Yard Safety Improvements Construction Project currently under construction by PnP Construction, Inc. Construction support throughout the project is being provided by CHWD's construction manager, Domenichelli and Associates.

AGENDA ITEM: MS-2

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO BOARD OF DIRECTORS
OCTOBER 18, 2017 REGULAR MEETING

SUBJECT	:	METER REPLACEMENT STUDY UPDATE
STATUS	:	Information Item
REPORT DATE	:	October 10, 2017
PREPARED BY	:	Hilary Straus, General Manager Rex Meurer, Water Efficiency Supervisor

Staff will provide an update to the Board on the status of the Meter Replacement Program Request for Proposals (RFP). Staff will also update the Board on CHWD's progress in working with several surrounding water districts to develop a multi-agency Water Meter Replacement and Operations program.